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Alaska Pulp Corporation Long-Term Timber Sale Contract

Final Supplement to the
Environmental Impact Statements
for the 1981-86 and 1986-90
Operating Periods

Consolidated Appendix: Volume II
Public Comments and Forest Service
Responses
Phase I and Phase II

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Alaska Pulp Corporation Long-Term Timber Sale Contract

**Consolidated Appendix: Volume II
Phase I and Phase II Public Comments and
Forest Service Responses**

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Phase I Comments and Forest Service Responses

Phase I DSEIS - Public Comments

Summary, Categorization and Responses to Public Comments

Organization of Responses:

All Responses were read and comments classified. The concerns and questions were then put into an outline. The Broadest categories are identified by (I., II., III., etc.). These are then sub-divided into more specific sub-categories and identified by (A., B., C., etc.). The specific concerns and/or questions were placed under the proper sub-category and identified with by (1., 2., 3., etc) and identified as to respondent by the abbreviations shown above.

The response letter were copied and annotated to indicate where the topic is discussed in the Forest Service response. For example: The "IIA2" annotation on the SCLDF letter indicates the Forest Service response can be found under: "II. Adequacy of Analysis; A. Range of Alternatives to be considered in Phase II is too narrow; 2. SCLDF: Although APC has used them ...".

The annotated letters are located directly after these responses. The Table of Contents for these letters is located on page 47 of this Appendix.

Abbreviations:

SCLDF--Sierra Club Legal Defense Fund (& SEACC)
JM--Southeast Alaska Natural Resource Center
PFC--Pelican Forestry Council
ATC--Angoon Trading Company
DOI--Department of Interior
WS--Wildlife Society
JS--John Swanson
ALS--Alaska Legal Services
CPA--City of Port Alexander
RTM--Richard T. Myren
LE--Larry Edwards (Sitka)
SSF&GAC--Sumner Strait Fish and Game Advisory Commission
NOAA--National Oceanic and Atmospheric Administration
EH--Ernestine Hanlon
COTS--City of Tenakee Springs
APC--Alaska Pulp Corporation

FOREST SERVICE RESPONSES TO PUBLIC COMMENTS

I. ORGANIZATION OF THE SEIS

A. SEIS Split Between Phase I and Phase II

1. SCLDF, WS: The two-phase approach of the SEIS makes it difficult to provide meaningful comments as site specific information is provided in Phase II while decisions limiting options are made in Phase I.

Response: (IA1). The two phase approach is responsive to the Notice of Intent. Phase I was designed to address changes in the implementation of the Operating Plan and other circumstances since the issuance of the 1981-86 Plan Record of Decision (ROD). This first phase was designed to be a programmatic overview of the entire APC contract area to determine where sufficient volume could be made available through the balance of the plan period.

Sixteen analysis areas were evaluated in Phase I to determine which analysis areas would most likely be available for entry before December 31, 1990. This Phase I analysis resulted in recommendations to conduct further detailed analysis (Phase II) on four specific analysis areas to determine the site-specific locations where volume needs as determined in Phase I could be met. Reviewers had an opportunity to respond to the Phase II documents. These Reviews and the Forest Service's response are part of this document.

2. APC: If the SEIS is not completed on time, there will be an insufficient volume of timber.

Response: (IA2) We agree that the supplement to the EIS's must be completed in a timely manner. Every reasonable effort, including negotiating an Amendment to the Settlement Agreement that has provided additional road construction and timber harvest areas on Kuiu Island, is being made to accomplish this work. We remain fully committed to meeting the contractual needs of the APC contract.

B. Scope of Supplementation

1. SCLDF, WS, JM: The Forest Service needs to broaden the scope of the SEIS. The scope should not be limited to simply responding to litigation.

Response: (IB1). Both the 1981-86 and the 1986-90 NEPA documents were developed as a result of scoping processes. See Section IV, Consultation with Others, in the 1981-86 FEIS and Volume I, Section 1 of the 1986-90 FEIS. This Supplement tiered from these documents and was limited in purpose and scope to addressing the issues identified in a Federal District Court decision, City of Tenakee Springs, et al. v. Courtright, et al; and to other issues of concern to

the plaintiff in the lawsuit. The scope of this Supplementation was expanded to include further subsistence evaluation as a result of the District Court Memorandum and Order in the Hanlon v. Barton lawsuit. CEQ regulation 1502.9(c)(4) requires the agency to prepare, circulate, and file a supplement to a statement in the same fashion (exclusive of scoping) as a draft and final statement unless alternative procedures are approved by the Council. No such alternative procedures were requested.

2. SCLDF, WS: The SEIS needs to address 86-90 appeal issues. The Settlement Agreement does not prevent further 81-86 NEPA analysis, especially for cumulative effects. The SEIS should address all public comments on the NEPA documents, and appeal and litigation issues.

Response: (IB2). The scope of this project will encompass the issues identified in the initial scoping for the EIS's and the issues identified in the Notice of Intent published in the Federal Register, plus additional subsistence evaluation in response to Hanlon v. Barton.

The supplement is being prepared to address issues identified in a Federal District Court decision, City of Tenakee Springs, Southeast Alaska Conservation Council, the Sierra Club, and the Wilderness Society v. Craig V. Courtright, et al. The issues identified are:

1. Changes in implementing the Plan since issuance of the Record of Decision, due to Native Corporation land selections and other actions resulting in deletion or deferral of a substantial number of harvest units from the Plan.
2. Further discussion of a no-action alternative (no further roading or harvest until at least the next 5-year operating plan) specific to each drainage or similar geographic area remaining to be entered for roading and harvest under the Plan, particularly in light of the deletions or deferrals of harvest units in various areas.
3. Further site-specific detail regarding environmental effects of alternate road and harvest configurations in the Upper Game Creek area of Chichagof Island, an area about which plaintiffs alleged particular concern in the lawsuit.
4. Further discussion of cumulative impacts of foreseeable roading and timber harvest in the vicinity of Upper Game Creek, and impacts associated with any changes in harvest practices on neighboring lands conveyed to Native Corporations.

The supplement is further intended to address other issues of concern to the plaintiffs in the lawsuit. These issues extend to areas included in the EIS for the 1986-90 Operating Plan for the APC contract, for which a Record of Decision adopting a final alternative for the 1986-90 Plan was issued December 31, 1986. The Supplement will therefore extend to the 1986-90 Plan EIS, and will consider whether to modify the Record of Decision for the 1986-90 Plan, as well as the Record of Decision for the 1981-86 Plan, in light of further

analysis and discussion of environmental effects in the EIS supplement. The additional issues to be addressed in the supplement in response to plaintiffs' concerns include:

1. Further analysis and discussion of site-specific and cumulative environmental impacts associated with alternative road and timber harvest configurations in other areas included in the 1981-86 or 1986-90 Plan which are not expected to be entered prior to completion of the supplement, equivalent to that required by the court decision for Upper Game Creek.
2. Further analysis and discussion regarding effects on subsistence resources and uses in relation to alternatives considered in the supplement, including an evaluation and determination of whether a significant restriction of subsistence uses would result, pursuant to Section 810 of the Alaska National Interest Lands Conservation Act.
3. Further analysis and discussion regarding mitigating measures, in relation to the alternatives considered in the supplement. The Notice of Intent to Supplement also indicated that other issues and alternatives identified during the supplement process may also be addressed.

The concerns expressed in the appeals were reviewed and considered by the IDT. A detailed summary of Statements of Reasons presented in these appeals can be found in the B Appendix of each Draft Phase II supplement for each Analysis Area. In addition, specific concerns developed in various appeals were addressed in respective responsive statements developed as part of the appeal process. Copies of these responsive statements of the Regional Forester are available for review.

3. SCLDF, JM, SSF&GAC, NOAA: The SEIS should append and address the findings from House Committee Report - (HR 1516 Title II).

Response: (IB3). HR 1516 as discussed in the Phase I Draft EIS passed the House of Representatives, but failed to pass the Senate. As written the bill would have placed a moratorium on harvesting and road development in VCU's 416, 417, and 418 on East Kuiu Island. HR 1516 also included 16 additional areas. Regional Forester Barton directed the Phase II Supplement to evaluate, in one or more alternatives, the impact of House Resolution 1516. The Phase II Supplement includes alternatives which do not propose entry into any of the nineteen HR 1516 areas through the balance of the Plan period.

HR 987 which passed the House calls for 23 new Wilderness Areas, four of which impact decisions to be made in this Supplemental process. In the FEIS, the Forest Service further discusses HR 987. Maps and tables of data are displayed identifying the locations and effects of alternatives in these areas.

4. JM. The SEIS ignores the 81-86 alternatives.

Response: (IB4). Alternative A in the 1986-90 FEIS is a continuation of the 1981-86 Preferred Alternative. Consideration of areas considered for entry in the 1981-86 Operating Period has been accomplished in Phase I. Consideration of the 1981-86 proposed or planned harvest areas that are located in the four Analysis Areas will be accomplished in the Phase II process. Implementation of the 1981-86 Preferred Alternative since the ROD was signed has precluded consideration of many alternate harvest configurations which were considered for the 1981-86 Operating Period. Many of these options no longer exist. In Phase I, Chapter 2, the FEIS discusses the Alternatives considered in the 1981-86 EIS and also discussed the individual areas that were eliminated from detailed study in the 1981-96 EIS.

5. JM. The SEIS is tiered to many other documents which make it difficult for the public to understand and evaluate.

Response: (IB5). A Supplement to an existing NEPA document must tier to the existing document. A supplement is not creating a new NEPA document. This supplemental effort includes two major NEPA documents. The intent of NEPA could be violated if this site specific EIS did not tier to the higher level documents.

This complexity is realized and the FEIS documents will attempt to respond to this concern.

6. JM: The SEIS establishes very large analysis areas for the "comparison" impacts.

Response: (IB6). The Tongass Land Management Plan (TLMP) recognized the need to delineate land units (VCU's) for evaluation and project planning purposes. It grouped VCU's together to form Management Areas. The 1986-90 planning process focused on VCU's and Management Areas. The Phase I Supplement combines VCU's into larger areas (Analysis Areas) by combining two or more TLMP Management Areas. This grouping of Management Areas is consistent with the Area Analysis direction found in the 1985-86 TLMP Amendment, p. 198-199.

7. JM: The SEIS eliminates many areas from detailed analysis.

Response: (IB7) The purpose and intent of Phase I was to conduct a programmatic overview of the entire APC contract area to determine which of the sixteen Analysis Areas were currently suitable on which to conduct detailed analysis to determine site-specific areas in which to build roads and conduct timber harvest activities. This process was necessary to focus efforts on the reduced number of areas requiring detailed analysis at this time to reach a reasoned decision.

8. JM: The SEIS objectives should be set out in the Purposes section on page 1-3.

Response: (IB8) The recommended SEIS objectives are duly noted as recommendations. However, the objectives of the Phase I document was to determine specific analysis areas on which site-specific impacts of continued logging, selected mitigation measures, etc., would be determined. The site-specific impacts are objectives of the Phase II documents and therefore should not be included as Phase I objectives.

9. WS: Why is there no transportation system designed or surveyed to access future timber? Doesn't the Life-of-Sale-Plan (LOSP) require at least preliminary road design work?

Response: (IB9) The levels of planning for a transportation system are as follows: 1) preliminary designation of travel corridors which will access timber and other considerations such as recreational use; 2) preliminary location of system roads using topographic maps and aerial photos; 3) preliminary location of roads on-the-ground; 4) survey of the roads; and 5) road design.

The anticipated LOSP road network for site-specific VCU's is displayed in the Phase II documents. The LOSP includes the implementation of levels one and two above with limited implementation of level three where difficulties of construction may be noted from the use of maps and photos. Preliminary design work on transportation systems is limited to the determination of a preliminary designation of travel corridors and road classes which are determined primarily on anticipated use.

10. WS: Why has preliminary road access reconnaissance been completed in non-deferred VCU's, and road location, survey and design has been completed in deferred VCU's?

Response: (IB10) On page 72 of Chapter 4, Draft Phase I, the designation of non-deferred and deferred was unintentionally reversed. The comment is duly noted and the Final Phase I SEIS will editorially corrected. Unfortunately this same situation remains in the FEIS as printed. This will be corrected in the ERRATA.

11. APC: APC is too constrained until SEIS is done.

Response: (IB11) The Settlement Agreement, (Draft Phase I, Appendix B) as signed by Alaska Pulp Corporation and other parties, contemplated that a sufficient volume of timber would be available, during the period the Supplemental EIS was being prepared, to meet the reasonable timber supply needs of existing APC operations. Additional road construction and timber harvest areas have been approved in an amendment to the Settlement Agreement to maintain existing APC operations on Kuiu Island.

The Final Phase I, Chapter 2, discusses, by individual sale, the availability and disposition short-term sales.

II. Adequacy of Analysis

A. Range of Alternatives to be considered in Phase II is too narrow.

1. SCLDF, JM, PFC, SSF&GAC: Too large of areas were eliminated from consideration; timber supply from outside the contract area was not considered; harvest along existing roads was not considered.

AND

2. SCLDF: Although APC has used them in the past, non-NFS and independent sale sources were not considered without any explanation.

Response: (IIA1 and IIA2) The purpose and need for the proposed action considered in the SEIS is to meet existing contract volume requirements for the remainder of the 1986-90 operating period. The existing contract provides timber volume be supplied from Tongass National Forest lands. An alternative supplying volume from other lands named will not meet the purpose and need for the proposed action, nor would such an alternative be consistent with existing contract requirements. There is no enabling legislation to allow Federal money be used to purchase timber, construct roads, administer sales, or otherwise make private timber available to contribute to fulfillment of the contract, even if private owners were willing to make that timber available.

In Volume I of the 1986-90 final EIS, p. 2-9, the Regional Forester considered, but eliminated, the alternative of using Tongass Supply Funds to purchase logs from Native Corporations to fulfill the Forest Service obligation under the contract. ANILCA provides no authority to purchase timber from the Native Corporations in order to provide it to APC. Legislation would be required prior to further consideration of this option. Such legislation is not expected in the foreseeable future.

Non-National Forest Timber Substitution.

The only other major land owners in Southeast Alaska capable of providing a substantial amount of timber to APC, within the SEIS time frame of December 31, 1990, are the Native Corporations. This alternative was considered, but eliminated from detailed study, in the Final Environmental Impact Statement (FEIS), Volume I, for the 1986-90 Operating Period for the Alaska Pulp Corporation Long-term Sale Area, pages 2-6 to 8. This same alternative was considered in the DRAFT SEIS Phase I, Chapter 2, page 15. It was again eliminated from detailed study. The Forest Service does not have the authority to acquire timber harvest rights on private property.

The current management situation consists of a valid contract between the Forest Service and APC. This contract bestows rights and obligations on both parties. One obligation for the Forest Service is to provide the agreed upon volume from an identified area of the Tongass National Forest. (See APC

Contract, Section 1. Sale Area.) Therefore, APC has the right to expect a total of approximately 521 MMBF of new volume will be provided each five year period in addition to carryover volume from prior five year periods. Any alternative that attempts to substitute other logs as part of the 521 MMBF or carryover will not fulfill the Forest Service obligation under the APC Contract.

Logs from Native Corporation lands cannot substantially meet the total needs of APC. Owners of private timberland are able to sell their sawlogs on the export market for a much higher prices than can be paid by local manufacturers. This is one of the main reasons for the law requiring primary manufacture of timber from the National Forest within the State (36 CFR 223.61). This provides an economic base for numerous communities and many jobs for Alaskans. Other owners do, however, sell lower grade logs to APC. These are mostly used for pulp. Enclosure 2 shows that if APC were to buy all available Sealaska pulp in the future, they would obtain approximately 125 MMBF during the harvesting of the remaining Sealaska Timber holdings (See Consolidated Appendix, Volume III, F, Enclosure p.2). Sealaska estimates that about 35 MMBF of that volume would be tributary to APC over the next ten to twelve years (about 6 MMBF per year). On a five-year operating period basis, this would provide APC an inadequate supply of pulp logs. The village Native Corporations of Huna Totem, Kake Tribal, Gold Belt, and Shee Atika have already converted much of their holdings to young growing stands for future generations. Consequently, they will produce a limited volume of pulp logs in the near term. The remaining extensive Native timberland holdings are nearer to Ketchikan than to Sitka. Due to their competitive advantage on transportation costs, it is reasonable to assume that LPK would buy many of the logs generated closer to their mill.

APC is not prohibited under the contract from purchasing timber from Native Corporations or other sources. (See Contract, Section 5d, that will become effective May 31, 1990, in accordance with the Settlement Agreement between Alaska Pulp Corporation and the Forest Service dated September 8, 1989). APC may purchase any volume of timber it chooses from non-National Forest sources. There are no provisions in the Contact to offset such purchases by adjusting the Contract timber volume.

Canadian Timber Sources.

Canadian timber has been mentioned as a source of supply for Southeast mills in general; and APC in particular. Although both Southeast Alaska pulp mills have purchased pulp logs from British Columbia (BC) in the past; the political and economic situation in British Columbia has changed. The June 1988 issue of British Columbia Lumberman, page W14, states that a substantial increase in demand for BC forest products last year is expected to decrease log exports. The Forest Minister stated: "Our main objective is to use BC timber to manufacture wood products in this province." He also stated: The log export policy now applies to mid-coast, north coast and the Queen Charlotte Islands, the same as everywhere else."

An article in the March 22, 1989, New York Times business section states:

VICTORIA, British Columbia, March 21 (Reuters)-- The British Columbia government plans to reduce exports of raw logs from the province by raising to 100 percent, from 40 percent, the existing tax on the difference between the foreign price of a raw log and the domestic price, the Forest Minister, Dave Parker, said Monday. Mr. Parker said the new tariff was intended to "save sawmilling jobs."

Considering current trends, it is unlikely that any substantial volume of timber will be available from Canada. Even if timber were available from Canada, the existing contract requires timber volume from the Tongass National Forest. An alternative supplying timber from Canada will not meet the purpose and need for the proposed action and would require new legislation as well as APC agreement to be implemented. Neither is expected in the foreseeable future.

Harvest Along Existing Roads.

In regard to the proposal to harvest along existing roads, the Phase II analysis has used this option in the site-specific determination of proposed harvest units. Review of the maps included with the Phase II documents will show where this option was exercised. Also see Response IIA5.

3. SCLDF: Consideration of areas beyond APC contract area is one way of reducing the concentrated logging demands on Chichagof, Baranof and Kuiu Islands. Within the Stikine Area, those parts of Kupreanof, Wrangell and Mitkof Islands which have not been included by SEACC or ADF&G in logging deferral requests, should be considered.

Response: (IIA3). The Long-term Sale Contract limits operations to a defined sale area. Section 1a, as shown in Volume III of the 1986-90 final EIS on pages A-3 and A-4, states in part:

The sale area is comprised of Allotments B and H, the Contingency Area in Allotment C, and to the extent that the Forest Service may designate additional cutting areas in Allotment A-1 under the terms of this contract and to no further extent, such areas in Allotment A-1 as may be so designated... It is agreed that cutting shall be confined within the boundaries of pulptimber Allotments B and H as shown on said map unless the quantity of timber available for cutting thereon under the terms of this contract is less than 4,974,700,000 board feet... In event the quantity of timber available for cutting within said Pulptimber Allotments B and H... during the period of this contract is less than 4,974,700,000 board feet, the Forest Service shall designate additional cutting areas within that portion of Pulptimber Allotment C designated on Map A as "Contingency Area" to bring the total up to 4,974,700,000 board feet; or in lieu of designating such additional cutting areas within said portion of Pulptimber Allotment C, the Forest Service may, at its discretion, designate additional cutting areas within Pulptimber Allotment A-1 containing

timber not then required to satisfy other timber sale contract obligations of the United States to bring the total up to 4,974,700,000 board feet...

Therefore; to provide volume outside of those lands specified above, would require a bilateral change in the terms of the contract, or Congressional direction to do so.

Substitution of Short-term Sales.

George Woodbury's Affidavit (See Consolidated Appendix, Volume III, F, Enclosure 3) states there are no existing short-term sales, that have been awarded to operators, available for purchase by APC or WFP. Other advertised short-term sales offered on the Chatham Area for the last eight years (with the exception of Homeshore and two in Yakutat) have been challenged by various preservationist groups, and stopped at some stage of completion. These sales would have to be resurrected, boundaries marked and rechecked on the ground, and roads and LTF's constructed. Some permits have expired, or were never obtained, and would need to go through the permitting process. Even if APC would agree to go to one of these withdrawn sales, the requirements of an EA/EIS, the permitting process, and LTF and/or road construction make these alternatives not achievable within the remainder of the 1986-90 Operating Period.

The Final Phase I, Chapter 2, discusses individual short-term sales and who purchased them or other disposition. This same section also discusses the reassignment of the Couverden Timber Sale to APC under a Third Party Agreement.

4. SCLDF: The DEIS fails to look beyond the bounds of the operations area without any explanation.

Response: (IIA4). The boundaries of the current operating areas were not considered to be limiting factors in the Phase I determination of what Analysis Areas were to be considered in more site-specific detail. Boundaries of current operating areas were not considered as limiting factors in determining the site-specific locations of proposed for roads and timber harvest units in the Phase II analysis. Review of the various Phase II documents will reveal proposed harvest units and roads extending well beyond the bounds of areas of operations as developed in the original FEIS documents. The proposals for Analysis Area 6 particularly in VCU's around Sitkoh Bay are a good example. The last planned harvest activities in this area were considered in the 1976-81 FEIS. The availability of areas to provide volume that would be available to harvest before December 31, 1990, was determined by considering logistical constraints such as the need for new LTF's or logging camps.

5. SCLDF, WS: The Forest Service should consider reactivating past operations in areas such as Sitkoh Lake and Rodman Bay which have already been roaded.

Response: (IIA5). All of these areas were considered in Phase I. The area around Sitkoh Bay and False Island is included in Analysis Area 6. Please see the DSEIS for Analysis Area 6 for the site-specific details of this consideration. Other areas such as Rodman Bay, where extensive harvest has occurred in the recent past were considered in Phase I but, for various reasons, as discussed in detail in the Phase I document, did not meet the criteria established for determining which Analysis Areas would be studied in Phase II.

Early in the SEIS process, the IDT sought to determine the ability of each VCU in the APC sale area to contribute needed volume within the SEIS time frame of May 1, 1989 to December 31, 1990. To aid in this process, the Chatham and Stikine Areas were asked to fill out an APC SEIS - NO-ACTION INPUT DATA BY VCU (For Pulp Units B, H, A-1, and Contingency Area C) (See Consolidated Appendix, Volume III, F, Enclosure 5). The SEIS team added information on TLMP planned harvest for the 81-86 PERIOD and the 86-90 PERIOD. Draft Phase I, Table 4-42, is an example of a summary of selected VCU's. The data, in a coded form, for all VCU in the APC Sale Area are summarized in Appendix F of the Draft Phase I. This was done to determine the extent of previous harvest and, if applicable, the availability of previously harvested areas for a second entry.

In addition to past and planned harvest in each VCU, and the current status of existing and planned roads, logging camps and communities, log transfer facilities, existing permits and progress on needed permits, and status of any work in progress on LTF evaluation, road design and harvest unit layout were considered and evaluated.

6. SCLDF. The DEIS should consider a true no action alternative which would eliminate the APC contract.

Response: (IIA6) The 1981-86 EIS (p. 24) addressed the No Action Alternative as follows:

"A "no action" alternative is a required consideration in an environmental study under the National Environmental Policy Act of 1969. A "no action" decision would maintain the areas under consideration in their present large roadless and undeveloped state."

"Section 15(b) of the National Forest Management Act of 1976 (PL 94-588) validated the long-term timber sale contracts in Alaska. The IDT recognized, therefore, that a "no action" decision on all management areas would violate this national direction. However, a "no action" alternative was considered individually for each management area, resulting in deferral of harvest in a number of management areas or portions of management areas. These specific "no action" decisions are presented in the list on pages 45-47."

This Supplement carries the 1981-86 EIS definition of the "no action" alternative in the further evaluation of deferred VCU's from the 1981-86 Plan, with the exception of the 1981-86 plan activities which have already occurred in these VCU's. The "no action" alternative for non-deferred VCU's would be the Record of Decision for 1981-86.

The "no action" alternative addressed the issue of not scheduling any new timber harvest activity during the 1986-90 Operating Period. This alternative would have continued those activities scheduled, but not completed, in prior operating plans. Alternative A in the 1986-90 FEIS would have deferred scheduling additional activity in the study area until after 1990.

This Supplement also carries the 1986-90 definition of the "no action" alternative and also does not schedule any 1981-86 plan activities beyond those that have already occurred, in further evaluation of deferred VCU's. The Record of Decision will remain the no action alternative for Supplement evaluation of non-deferred VCU's.

Phase II documents developed for each Analysis Area considers a "No Action" Alternative as required by NEPA. A No Further Harvest Action, which would stop all presently scheduled road construction and timber harvest and would propose no additional harvest activities through the balance of the 1986-90 Operating Period is also evaluated in Phase II documents.

7. SCLDF, CPA: The DSEIS failed to address legislation, especially that for cancelling the contracts.

Response: (IIA7). House Bill HR 987 and Senate Bill S 346 both propose cancellation of the long-term timber sale contracts. Neither Bill has been finalized and become law. Termination of the APC contract under these bills could eliminate the purpose and need for the proposed action considered in the SEIS. Phase II will further evaluate, in one or more alternatives, the potential impacts of HR 987 and S 346.

8. JM: The SEIS should consider alternatives that avoid further high-grading of timber and should analyze to see if there will be only low volume stands remaining.

NOTE: The Wildlife Society raised the "high-grading" issue in their review comments concerning both the 1986-90 draft EIS and the 1986-90 supplemental draft EIS. At that time we disagreed with the usage of the term "high-grading". The common use of the term in timber harvesting is to describe the action of cutting only the best trees and removing only the best logs from a given stand of timber, leaving the rest go to waste. One of the main reasons for building the pulp mills in Southeast Alaska was to avoid "high-grading" by utilizing the low quality timber dominating many of the stands throughout the Tongass.

The Wildlife Society has now qualified the term "high-grading" to mean the selective over-harvest of high-volume forest land. The assumption is made that this respondent assumes the same meaning as the Wildlife Society.

Response: (IIA8). Harvest of timber stratified by volume class in direct proportion to its occurrence on the Tongass National Forest or on the study area would not meet any objectives. This issue tends to be brought up by those with general concerns over timber harvest, i.e., protection of deer winter range and over-harvest of high volume timber stands. Harvest in proportion to occurrence would not necessarily reduce environmental impacts, or result in logical timber harvest units and roads. Substantive issues, such as the harvest of high volume stands, the protection of deer winter range and fisheries habitat can all be better met by addressing them specifically. These issues have been addressed specifically in the 1986-90 FEIS and the Phase II documents of this Supplement.

Individual Phase II documents contain analysis tables displaying the current inventory of acreage in each volume class and the proposed harvest acreage by volume class for each alternative. This Supplemental process has not surfaced any new information relating to this alternative and eliminates it from further study.

9. JM: Meeting the terms of the existing contract will further increase the overall dependence on low-volume stands for timber operators after the contracts expire.

Response: (IIA9). This concern appears to assume timber operators after 2011 will find only low volume stands remaining and that such stands will be less desirable at this future date and, therefore, an analysis of this concern should be made at this time. It is unclear as to the need of such an analysis or for what practical use such an analysis would be in the determination of the decision at hand. It has been and is a long-term management objective of the Forest Service to harvest a mix of high-volume and low-volume stands of timber.

The TLMP 1985-86 Amendment, Appendix C, analyzed remaining harvest volume distributions as of November 1985 to determine if harvest patterns had changed acreage distribution by volume classes to the extent that the Allowable Sale Quantity (ASQ) would need revision. This analysis showed that no changes of a significant magnitude had occurred (Appendix C, pg C-9). Phase II documents contain tables showing the acreage by volume class and the acreage proposed for harvest in the various alternatives.

10. SCLDF: An analysis of each of the Analysis Areas considered should be prepared like the analysis which was done for some analysis areas in Chapter 3, pages 34,62, to determine relative capability to meet APC's timber needs. (see same comment III D)

Response: (IIA10) Analysis for the Supplement Phase I consisted, in part, of evaluating the Analysis Areas for their ability to produce needed volume through the end of the planning period. The term "logistical constraints" refers to limitations on accessibility to harvest areas.

Analysis Areas 2, 3, 6, and 12 are considered high priority for the Supplementation in Phase I and II. Analysis Areas 1, 4, 7, 8, 9, 10, 11, and 13 are considered low priority for supplementation because of their individual inability to produce needed volume through December 31, 1990 and therefore have not been evaluated further. Areas 14, 15, and 16 were eliminated due to Wilderness classification. Logistical constraints indicate that Analysis Area 5 is a marginal priority for further consideration in Phase II. Phase I discloses resource data for Area 5 because of its important role in prior EIS's and to quantify its role for consideration in HR 1516 and subsequently HR 987.

The Current Situation for Areas 2, 3, 5, 6, and 12 is presented in Chapter 3 of the Phase I document. Each of these Areas were then analyzed in Chapter 4 to determine which of the 1981-86 and 1986-90 Alternatives could be implemented in the deferred VCU's until December 31, 1990. Non-deferred VCU's were also evaluated for their potential to provide volume, in lieu of entering deferred VCU's, for the balance of this plan period.

Detailed information such as provided for the high priority Analysis Areas in Chapter 3 was not deemed necessary to be included for the low priority areas as these low priority areas were no longer being considered for further analysis. Development of such information would introduce extraneous information not germane to further analysis of the areas remaining to be studied.

11. SCLDF: The Court in City of Tenakee Springs v. Courtright required consideration of site-specific no-action alternatives for each sub-area of the APC contract area.

Response: (IIA11). Phase II contains a No Further Harvest Alternative for all Analysis Areas being further evaluated. See also Response IIA6.

12. JM: The discussion of the preferred alternative with SEIS needs to include: 1) options available to access/harvest the area, 2) specific evidence that it is the "best" alternative and 3) possible tradeoffs between economic, environmental and other consequences should other options be implemented.

Response: (IIA12) The Phase II analysis provides this type of in-depth look at access and harvest options and tradeoffs in determining the best alternative. Phase I focused on determining the availability of volume and

determination of the locations where such volume might be found available after further Phase II site-specific analysis.

13. JM: The Analysis Areas are too large. The consistency between the TLMP process and the SEIS needs to be more clearly displayed. Analysis areas should be the size of independent sales for the 5-year plans.

Response: (IIA13). See Response IB6. The designation of Analysis Areas is consistent with directions found in the 1985-86 TLMP Amendment. Such directions also apply to the development of Analysis Areas for the determination of the locations of independent timber sales, as well as other site-specific projects.

14. JM. Need to show where APC contract prevents USFS from National Forest Management Act management direction within the APC Long-term sale area versus independent sales on the Tongass.

Response: (IIA14). The APC timber sale contract has been modified in accordance with NFMA to bring the contract into compliance with NFMA. See Volume III, Appendix A, of the 1986-90 FEIS. This Appendix contains a copy of the contract as modified 1/1/81. These modifications include, with others, modifications made in accordance with NFMA directions. It is noted that the respondent does not substantiate this statement in any way.

15. JM. The SEIS should identify whether areas under evaluation are LUD IV or III and what management measures are being used to meet their designation.

Response: (IIA15). There are various locations in the Phase I document that show the Land Use Designation (LUD) for individual VCU's. See Chapter 4, Environmental Consequences or Appendix F of the Draft Phase I for examples. Also see Phase II documents, Chapter 1, Purpose and Needs and Chapter 3, Affected Environment. Also reference TLMP, TLMP Amended and associated maps.

16. JM: How many of the 1985 Agreement areas are being eliminated from further analysis?

Response: (IIA16). The entire APC contract area, including all of the 1985 Agreement areas are considered in Phase I. (See Draft Phase I Appendix F). The Finger Creek (VCU 247), Catherine Island (VCU's 296 and 297), and Portage Arm/Cosmos Cove (VCU's 296, 298, 315, and 316) areas were subject to further analysis in Phase II of this Supplemental process.

17. JM, WS: Harvesting in proportion to volume occurrence should be considered (high grading issue).

Response: (IIA17). See Response IIA8.

18. JM. SEIS should explain the difference in miles of planned road construction between ALP Alternative and the Preferred Alternative in the 1981-86 FEIS.

Response: (IIA18) The correct numbers for the amount of road which would have been required to access the timber for Alternative 8 of the 1981-86 EIS, ALP's Alternative, is 310 miles, not 8 miles as published. For Alternative 9, the Preferred Alternative, the amount of planned road is 354 miles, not 280 as published.

19. JM. The ranking of high, low and marginal priorities in terms of Phase II should be explained.

Response: (IIA19). As part of the evaluation of each Analysis Area for further analysis in Phase II, a priority of high, low or marginal was assigned each analysis area. This prioritization represents the determined capability of each area to meet the volume commitments of the APC contract for the remainder of the 1986-90 Operating Period.

20. JM: All areas and alternatives in 1981-86 and 1986-90 must be included in the SEIS to make it meaningful.

Response: (IIA20) See Response IB7. All areas of the APC Contract Area were analyzed to determine which areas would receive Phase II analysis. See Response IB4. All alternatives in the 1981-86 and 1986-90 FEIS's were discussed and considered in Phase I. Numerous portions of certain alternatives have been included in various alternatives in Phase II documents.

21. JM: Why were VCU's 416, 417, 418 and 419 entered for road-building when other more economical areas were available?

Response: (IIA20). There has been no road construction in VCU's 416, 417, or 418. This table is in error and will be revised in the final document. Certain portions of VCU 419 were designated as areas where harvesting activities could continue during the period of time needed for the Supplementation process. See Supplemental Agreement. Volume in VCU 419 was necessary to provide APC with sufficient volume to maintain normal production from their existing logging operation located on Kuiu Island.

B. Timber Supply Needs Analysis.

1. SCLDF. Need to:

- 1) identify "carryover" as of 1/1/87.
- 2) identify amount APC harvested in past two seasons. What amount was carryover and what was from 1986-90 Operating Plan.
- 3) identify how much is deferred because of SEIS and how much is available as of 1/1/87.
- 4) identify how much timber was deleted as uneconomic after approval.
- 5) identify how much timber is available along existing roads.
- 6) tell whether APC has met the 70 percent clause in its contract for 1987 and 1988 operating seasons. Explain the 70 percent rule. How has APC performance been affected by it? How did the 1985 Agreement affect APC performance?

Response: (IIB1) 1) identify "carryover" as of 1/1/87. The timber supply needs analysis was designed to determine the volume that would need to be developed under the Supplementation process as of January 1, 1988. Specific information relating to the status of carryover volume as of earlier periods have not been developed. It remains unclear as to any meaningful use of such information in this decision-making process. The status of carryover volume as of 1/1/88 is found in Chapter 3 for each VCU in each Analysis Area.

2) identify amount APC harvested in past two seasons. What amount was carryover and what was from 1986-90 Operating Plan. APC harvested 58,202 MBF of sawlog volume during 1986 and 88,502 MBF sawlog volume during 1987. Scaled volume is reported as being volume produced during a given Operating Period and is not reported based on the Operating Period FEIS that was the original decision document. However, all of the timber produced and reported scaled during 1986 was carryover volume as the 1986-90 ROD was not signed until December 31, 1986. The preponderance of the volume reported scaled for 1987 was also carryover volume as road construction and on-going harvest activities were still targeting carryover volume. Also the January 4, 1985 Agreement required that carryover volume be harvested first.

3) identify how much is deferred because of SEIS and how much is available as of 1/1/87. No data has been developed that shows how much carryover was deferred or was available for harvest as of 1/1/87. These figures as of 1/1/87 have no meaningful use in this decision-making process. Table 4-11 in the Phase I document shows the acreage of carryover as of 1/1/86.

4) identify how much timber was deleted as uneconomic after approval. See Appendix C in Draft Phase II documents for reasons for the addition or deletion of acreage to specific harvest units.

5) identify how much timber is available along existing roads. As the Supplemental process is not analyzing a decision relating to the size or timing of second or third entries along existing road systems, this information has not been developed and does not appear meaningful for use in determining the decision at hand.

6) (a) state whether APC has met the 70 percent clause in its contract for 1987 and 1988 operating seasons. (b) Explain the 70 percent rule. (c) How has APC performance been affected by it? (d) How did the 1985 Agreement affect APC performance.

(a) Section 5d, Proportion of Plant Requirements from Contract Area (70 percent clause) does not require APC to fulfill the 70 percent requirement for any given year during a five-year operating period. No information has been developed for each of these years.

(b) Section 5d reads:

"During the period prior to June 30, 1966, and during each five-year operating period as specified in Section 5b, unless such amounts are reduced in writing by the Forest Service, at least 70 percent of the log requirements of the pulpmill shall be cut from the areas included in this contract."

Contract interpretation and administration of this clause requires APC to harvest (cut) a volume from the sale area equivalent to 70 percent of the volume consumed in the pulpmill (as defined elsewhere in the contract). The contract does not require APC to consume such timber in their pulpmill.

(c) There is no information available as to how APC has been affected by the 70 percent requirement.

(d) The January 4, 1985 Agreement included an agreement that reduced the 70 percent requirement for the 1981-86 Operating Period to 29 percent. No effects on APC's performance are known as a result of this modification to the 70 percent requirement.

2. JM, LE: More discussion is needed on the availability of native logs to substitute for APC pulp needs.

Response: (IIB2). See Responses IIA1 and IIA2.

3. SCLDF: The 229 MMBF Phase II timber supply goal needs an explanation.

Response: (IIB3). The 229 MMBF constitutes the amount of timber necessary to meet the remainder of APC's contract commitment for the 1986-90 Operating Period. The January 4, 1985 Agreement between APC and the Forest Service (Consolidated Appendix, Volume III, L) provided that the Forest Service was not required to appraise more than 700 MMBF of sawlog timber for the 1986-90 Operating Period.

The actual sawlog volume appraised for the 1986-90 Operating Period, including carryover, was 696,219 MBF. The unharvested portion of this volume is the minimum still needed to meet the January 4, 1985 Agreement commitments to APC through December 31, 1990. The portion of this unharvested volume that requires supplemental NEPA analysis was calculated as follows:

696,958 MBF appraised sawlog volume for period starting 1/1/86
-146,704 MBF scaled net sawlog volume for CY 1986 and 1987.
549,515 MBF volume need as of 1/1/88 to meet contract requirements as
modified by the January 4, 1985 Agreement.
-320,362 MBF estimated volume remaining in non-deferred harvest units as
of 1/1/88.
229,153 MBF estimated volume needing supplemental NEPA analysis.

4. SCLDF, WS, NOAA: The SEIS needs to fully set out and explain changes that happen in actual sale layout and unit location.

Response: (IIB4). Full documentation of all the changes that have happened in actual sale layout and unit location are on file in the respective office of the Forest Supervisors responsible for implementation of the Records of Decision. Such documents are available for public review. Also see Appendix C in Draft Phase II documents and, Appendix A of Final FEIS for the four Analysis Areas, for an unit by unit discussion of changes in unit acreage.

The cumulative effects of previously harvested acreage reflect such changes in location or design as may have occurred during the implementation process. As the unit changes have occurred to areas on which harvesting has occurred and as the decision at hand is to determine where future harvest activities shall take place, a detailed explanation of each and every change to areas already harvested would not provide meaningful information related to the pending decision. The cumulative effects of prior harvest patterns is considered in this decision-making process. The Phase II process accomplishes the site-specific analysis that considers such changes in the acreage of prior harvest activities that may have occurred. Phase II documents display these changes in their Appendix.

5. LE: Why is more timber offered than is required by the contracts?

Response: (IIB5). There is not more timber being offered than required by the timber sale contract. For the 1986-90 Operating Period, the January 4, 1985 Agreement between APC and the Forest Service limited the volume to be appraised to not more than 700 MMBF of sawlog volume. This is 234 MMBF of sawlog volume less than the volume required to be provided under the contract for the same period of time. For a detailed analysis of this, please see the section in Appendix B of the Draft Phase II documents titled "Responses to Phase I Public Concerns", pages 7-8. (See also, Consolidated Appendix, Volume III, F)

6. WS, CPA, NOAA: "Isolated timber" needs to be explained.

Response: (IIB6). During both the planning and implementation phases of timber sale layout, the avoidance of isolating timber from future harvest opportunities is an important concern. Isolating timber from future harvest opportunities can occur if a need arises to protect adjacent regenerated stands of timber, logging engineering problems such as a lack of stump anchors prevents the use of cable logging systems, or terrain features prevent access at the time of future entry. The isolation of timber can also occur as a result of economic factors that preclude an economically feasible later entry. Timber that is left to protect or enhance other forest resources is not considered as being "isolated timber". See Volume I, Subsection 4a, pages 4-9 and 4-10 of the 1986-90 FEIS for an additional discussion on "isolated timber". Timber that is isolated from standard harvesting methods either due to the lack of the capability of the standard harvest system to reach the timber or gross economic infusibility may become available to harvest by non-standard harvest systems (ie., helicopters or multi-span skylines) at some time when market demand provides a favorable economic condition.

7. SCLDF: The DSESI should explore the option of APC use of other timber sources.

Response: (IIB7). See Responses IIA1 and IIA2.

8. SCLDF. The DSEIS should discuss the issue of how "economic" timber is determined to support conclusions.

Response: (IIB8). In Draft Phase I, Appendix F, No Action Alternative, there is discussions concerning individual VCU's in the APC contract area. This set of discussions summarizes reasons from the past that reflect some of the main reasons on which decisions were based at the start of a given Operating Period to conduct or not conduct harvest activities within a given VCU.

Included in these discussions for some of the VCU's is the following statement:

"Economically less efficient than other volume in Hoonah Area".

Review of the 1986-90 Record of Decision, page 12, shows the decision to defer harvest and road construction activities in certain VCU's was made because volume in these VCU's is "economically less efficient than other volume in the Hoonah Area". The analyses supporting this determination are part of the 1986-90 Planning Record.

9. JM: The SEIS should explicitly show the relationship of TLMP harvest schedule to each of the 5-year operating periods included in the SEIS.

Response: (IIB9). The 1976-81 Operating Period was planned and implementation had occurred before and during the development of TLMP. This activity was reflected in TLMP, Part II, in the Management Area Direction and Emphasis Summaries. See Appendix F in Draft Phase I. See Responses IIA8 and IIA9.

10. JM. Why was the administrative decision made to exclude utility volume from the original contractual volume requirements and how does the exclusion of utility volume increase the number of acres needed for harvest?

Response: (IIB10). The three classes of logs in the APC timber sale contract include sawlogs, utility logs and cull logs. Sawlogs are defined as a log that must be one-third sound for lumber recovery. Utility logs are those logs less than one-third sound for lumber recovery but contain at least 50 percent of their gross volume in firm chippable wood. Cull logs are logs that do not meet the minimum requirements for sawlogs or utility logs. Both sawlogs and utility logs are required to be removed from harvest areas in accordance with stipulations of the timber sale contract. Stumpage rates are charged for both sawlogs and utility logs. Cull logs are not required to be removed from harvest areas and there is no stumpage charge if the purchaser so elects to remove such material.

Utility log volumes were not included in the total volumes to be made available under the long-term timber sale contract. As utility volumes were not included, the contractual commitments for volume are met only by the volume of sawlogs removed from the contract area. Utility log volumes removed from the sale area do not count toward contract commitments for volume. As utility log volumes were never included, such volumes cannot be excluded. Therefore the acreage to be harvested to meet the sawlog contractual commitment does not change.

11. WS: The DEIS fails to address discrepancies between the two timber inventories conducted on the study area.

Response: (IIB11). The Wildlife Society's concerns about two inventories on the 1986-90 study area was fully addressed in the Regional Forester's Responsive Statement prepared in response to the Wildlife Society's appeal of

the 1986-90 Record of Decision. This full response is on file and available for public review.

The results displayed in the two tables were based on two different types of inventory methods. Table 3-4 (Volume I of the 1986-90 FEIS) is based on the updated TLMP inventory data base. This inventory was conducted using a photo point sampling method, designed to be accurate only on a forest-wide sampling level. The TLMP inventory data is not statistically sound for use at the project level, but does provide baseline data for comparison of alternatives being compared at a VCU level.

The results displayed in Table 4-77 (Volume I of the 1986-90 FEIS) are based, as indicated in the footnotes on page 4-236, on the Timber Inventory Map File Data Base. This data base was created by digitizing all CFL displayed on timber volume type maps site-specific to the study area. These Volume Type Maps provide more accurate timber stand information on a stand-by-stand basis for the Study Area than that provided by the photo point data in TLMP. These tables do not display only acres of old-growth, they display all acres of commercial forest land.

12. WS: The DSEIS fails to address errors in the multi-entry layout plan for the 1986-90 study area.

Response: (IIB12). The following is the Wildlife Society's concern, expressed in their appeal of the APC 86-90 ROD, and the Forest Service response to this issue.

Wildlife Society's concern:

4. Significant errors in the multi-level layout planning for the 1986-90 study area were not corrected.

Multi-level Layout Planning (MELP) was used in the long-term and cumulative effects analysis (subsection 4). On page 4-236, the first row of the table 4-77 shows the total acres of commercial forest land by volume class in the study area. Acres occurring on unstable soils, oversteepened slopes, in wildlife habitat retention, or other classifications precluding timber harvest are subtracted, leaving what is termed "accessible" timber (row 2, Table 4-77). In the case of the high volume class, there are 94 more acres reportedly accessible than exist. The true number of accessible high-volume acres is probably 100-500 acres less than that reported. Errors of this magnitude are significant considering that only 245 acres of this volume class are expected to remain after year 2080 (Table 4-77). Given the high public concern over this scarce resource, mistakes which might mean the difference between 245 acres left, or no acres left cannot be ignored

Forest Service response:

The first row of table 4-77 is based on Timber Volume Type Maps which were digitized to create the Timber Inventory Map File Data Base. The second

row of the table was developed by re-digitizing the same set of maps at a later date for the Multi-entry layout planning. Both digitizing efforts measured the areas of thousands of polygons. The difference you point out is in the 50+ MBF/acre volume class. The difference is small, less than 2% of the acres in the volume class.

The allegation that errors of up to 500 acres were involved resulted from the Wildlife Society's misunderstanding of the use of the site-specific timber type map inventory. See response IIB11.

13. WS: Why isn't timber available on ROD postponed VCU's available for Phase II analysis?

Response: (IIB13). It has been determined through Phase I analysis that only Analysis Areas 2, 3, 6, and 12 meet the criteria, as established in Phase I, for receiving further site-specific analysis in Phase II. There are a number of VCU's that were postponed (deferred) by the 1986-90 ROD that are being reconsidered in Phase II. See Chapter 3, Phase I, Table 3-34, as an example of where ROD postponed VCU's are included in an Analysis Area that was selected for Phase II analysis.

14. APC: The SEIS estimates of additional volume of 230 MMBF (in Phase II) is too low by 40 MMBF.

Response: (IIB14). The volume of 229 MMBF was described in Phase I as being the minimum volume needed to meet contractual commitments. Phase II analysis will determine the actual volume needs to meet this commitment.

15. APC: APC has received less volume than ROD called for because of actions such as deletions.

Response: (IIB15). Phase II analysis will determine actual volume needs to fully meet existing contractual obligations.

16. APC: The SEIS substituted timber volume which is less economical than the timber volume for which it was substituted.

Response: (IIB16) Economics is an important consideration in the SEIS, and effort is being made to balance the management of the National Forest through analysis of the many issues being addressed by the SEIS. Comparison of the economics of alternate timber selections with volumes of timber included, but not harvested, from the 1981-86 and 1986-90 Operating Periods have not been made. Such information is not applicable in the decision-making process at hand. Economical comparisons of various proposed alternatives are considered in Phase II.

C. Cumulative Impacts.

1. SCLDF, WS, LE, SSF&GAC: The SDEIS does not present a long-term cumulative effects analysis of completing the APC contract.

Response: (IIC1). Phase II analysis found in Chapter 4 of each Phase II document addresses the reasonably foreseeable, long-term, and cumulative effects. The reasonably foreseeable and long-term time frame is interpreted to mean until the end of the APC contract.

The cumulative effects analysis includes the effects of past harvest, existing proposed harvest, adjacent harvest (private and state lands), and harvest proposed under the SEIS alternatives as well as reasonably foreseeable impacts to the year 2011.

2. SCLDF, JM: The SDEIS needs to analyze non-deferred 1986-90 areas as part of the cumulative effects analysis.

Response: (IIC2). See Response IIC1. Past and existing proposed harvest effects are included in the cumulative effects analyses in Phase II.

3. JM: The SDEIS should analyze the effects of activities in adjacent areas, the effects on other parts of the Tongass, and the effects of completing contract by 2011.

Response: (IIC3). See Response IIC1.

4. JM: The SDEIS should analyze the estimated cumulative effects of fully completing the APC timber sale contract within sale area.

Response: (IIC4). Such an analysis has no bearing on the decision at hand. See Responses IIA10, IIA11, and IIC1.

5. JM: The SDEIS should analyze cumulative effects prior to 1980 and explain how certain cumulative effects are calculated.

Response: (IIC5). See Response IIC1. Phase II documents analyze cumulative effects of past actions up to and including proposed actions through the reasonably foreseeable future.

6. JM: Why was the administrative decision made to exclude utility volume from the original contractual volume requirements and how does the exclusion of utility volume increase the number of acres needed for harvest? (Duplicate of IIB10).

Response: (IIC6). See Response IIB10.

7. WS: The SEIS should analyze the long term and cumulative impacts of "high-grading."

Response: (IIC7). See Response IIA8.

8. WS, NOAA: The SEIS should analyze the long-term (100 years) cumulative effects to show what will become of deer.

Response: (IIC8). See Response IIC1.

D. Subsistence Analysis.

1. SCLDF, PFC, ATC, SSF&GAC: The SEIS should analyze: (1) the quantify, intensity and value of the relative use of areas; (2) the sensitivity of areas to disturbance; and (3) the scale of logging in the areas.

Response: (IID1). Since publication of the Draft Phase I document, much effort has been directed towards gathering and refining subsistence data. The Tongass Resource Cooperative Survey (TRUCS), which was a cooperative study between the Forest Service and the University of Alaska, has produced a great deal of site-specific use information. Subsistence hearings were conducted as part of Phase II. The newly gathered data will be used to show use of subsistence resources and for other purposes such as assessing impacts of timber harvest.

Phase II determines the site-specific locations of proposed harvest activities which will provide direct comparison of the degree of harvest activities in relation to subsistence use patterns.

2. JM: Analysis based on carrying capacity is too broad to disclose specific information on subsistence areas.

Response: (IID2). Ongoing studies are designed to deal with this aspect of subsistence, including the hearing process. More detailed information is available in the Phase II documents for Analysis Areas 2, 3, 6 and 12.

3. SCLDF: The discussion of Native logging and its impact on analysis areas near subsistence communities is inadequate.

Response: (IID3). See Response IIC1 regarding the cumulative effects analysis that includes harvest on adjacent lands, ie, Native lands.

4. SCLDF, EH: To determine how past, present and future logging will impact each of the subsistence dependent communities in or near the APC contract area, site specific data about importance of each area to each community is needed.

Response: (IID4). See Response IID1.

5. CPA: Explain Tables 4-18 through 4-33.

Response: (IID5). Tables 4-18 through 4-33 show use patterns by community. These tables were not designed to show intensity of use by individual communities. Phase II further analyzes subsistence use in relation to site-specific activities within VCU's. Intensity of use is expected to be determined through Phase II analysis.

6. SCLDF: SCLDF argues that logging by APC will cause a significant restriction of rural subsistence opportunities and if such a restriction appears possible, ANILCA Section 810 hearing procedures must be followed.

Response: (IID6). See Response IID1. ANILCA Section 810 hearings were held as part of the Phase II process.

7. EH: The effects of new roads on subsistence lifestyles needs to be addressed.

Response: (IID7). Phase II analyses address the effects of new roads, as well as past and present road influences on subsistence issues.

8. COTS: Tenakee Springs takes pride in the maintenance of its foot-path trail system and to suggest that the trail system is maintained for ATV use is misleading and false.

Response: (IID8). FEIS documents clarify the status of this use.

9. COTS: Address the Alaska Board of Fish and Game's reduction of bag limits for deer and brown bear closure in the Hoonah area.

Response: (IID9). Sports bag limits for deer were decreased because of too many non-local hunters were arriving via the State ferry to hunt in the Hoonah area which resulted in increased harvest of deer. The brown bear closure was a result of the Game Board's concern that too many bears were being killed by hunters and "in defense of life or property". See Draft Phase II document for Analysis Area 2 for a detailed discussion of this topic (Chapter 3, pages 33-34).

10. COTS: The methodology for computing harvest figures is not accurate when applied to the local area.

Response: (IID10). The methodology is utilized and is acceptable by the State of Alaska Department of Fish and Game who have the management responsibility of maintaining viable populations of game.

11. COTS. Identify differences of opinion between the USFS and ADF&G.

Response: (IID11). Differences of opinion are to be expected between a multi-resource land management agency and a single-resource (game and fish populations) management unit that does not have direct responsibility for the management of the land and habitat on which the game and fish populations inhabit. Such differences are no different than those that may be found within the Forest Service between single-resource specialists. The Interdisciplinary Team (IDT) approach to planning management activities is designed to bring out and resolve these very differences. See Phase II documents for additional details.

12. CPA: The areas within a VCU which are used by subsistence hunters, trappers, fishermen, etc. should be indicated and specifically how proposed logging of those areas will affect subsistence use.

Response: (IID12). See Response IID1.

13. PFC. The SDEIS does not admit the effects of past timber harvest on subsistence which have been cited by the Alaska Department of Fish and Game.

Response: (IID13). The cumulative effects analysis in Phase II includes past and presently planned timber harvest activities. See Response IIC1.

14. CPA. The SDEIS ignores how roading, coupled with loss of deer habitat as a result of logging, produces a "double-whammy" on subsistence.

Response: (IID14). See Responses IIC1 and IID1.

15. ATC: Looks forward to subsistence analysis, plans for mitigation and subsistence hearings dates.

Response: (IID15). As part of the Phase II analysis, subsistence hearings were held in several communities in Southeast Alaska. The information from these hearings was considered in developing a final decision in this Supplementation process.

16. ATC: In order to understand subsistence and consequences resulting from land management decisions, the SDEIS should analyze cumulative regional subsistence effects, and assess total cumulative impacts.

Response: (IID16). See Responses IIC1 and IID1. The proposed actions, as stated in chapter 1, Purpose and Needs, does not deal with the programmatic effects of either both long-term timber sale contracts, the entire timber sale program or the over-all effect of the multitude of management activities being conducted on the Tongass National Forest may have on subsistence. These programmatic actions are properly evaluated in a Forest Plan where Regional effects, if any, on subsistence may be fully evaluated. Phase II displays and analyzes the multiple community usage of various portions of the project area.

17. WS: Provide reference for the statement that "Hoonah also wishes to maintain a timber harvest schedule which would provide long-term economic stability."

Response: (IID17). See the 1986-90 FEIS, Volume IIa, Response 153, page 6a-265. The response states, in part: The final alternative should recognize, as a goal, the need to plan for and manage a moderate level of harvest....to provide a stable flow of timber over a 15-25 year planning horizon.

18. ALS, CPA: The draft does not analyze the impacts on subsistence of any logging and roading which will take place after 1090.

Response: (IID18). See Responses IIC1 and IID1.

19. ALS: The SDEIS does not indicate what standard the USFS will apply when a possible restriction on subsistence triggers the notice and hearing procedures of Title VIII of ANILCA.

Response: (IID19). Phase II recognizes the recent decision in the case of Hanlon v. Barton, CITATION and is conducting subsistence analysis accordingly.

E. Wildlife and Fish Impacts Analysis.

1. RTM: Fisheries have not been addressed in the SDEIS.

Response: (IIE1). The Phase I document discusses fisheries in Chapter 3 to a limited extent. The Phase II documents provide site-specific data on fisheries resources in certain Analysis Areas, including estimations of the average annual value of salmon produced by VCU. The 1986-90 FEIS document contains additional information relating to the fisheries resources in the chapters on Affected Environment and General Consequences.

2. SCLDF, WS: Need to respond to: 1) 1986-90 appeal points; 2) quantify impacts on Chichagof brown bears and do a bear habitat model, as for deer, using the TLMP revision model; 3) show/prove adequacy of deer habitat model; 4) discuss fisheries and water quality impacts; 5) address adequacy of our monitoring & mitigation measures - ADF&G has study faulting it.

Response: (IIE2). 1). See Response IIB2.

2). See Phase II analysis relating to specific Analysis areas. A bear habitat model has been incorporated into the analysis process in Phase II.

3). The deer model was developed by wildlife biologists from both the Forest Service and the Alaska Department of Fish and Game. This model is a version of the model being developed to assess habitat capability for deer in the revision of TLMP. The variables used in this version of the model include habitat by volume class and successional stage, elevations, effects of predators, and winter severity. The additive effects of harvest units within a given VCU were calculated and presented in the Phase II EIS. The balance of the VCU capability in unharvested timber stands was also calculated using the model. Thus, cumulative changes of past, present, and reasonably foreseeable effects were calculated and presented in Phase II.

4). See Phase II site-specific analyses.

5). Refer to the 1981-86 and 1986-90 FEIS's for a more in-depth discussion of the standards, guidelines, and mitigation measures included in those documents. Further supplementation of these measures is presented as part of Phase II. The SEIS IDT found that the established directions, standards, and guidelines were closely followed in the 1981-86 and 1986-90 FEIS implementation. See Phase I, page 2-24.

3. SCLDF, CPA. Need new information on wildlife such as baseline and census data.

Response: (IIE3). Phase II documents include the most recent information regarding fish and game populations and harvest data that the Alaska Department of Fish and Game have.

4. NOAA, SSF&GAC. Need to discuss riparian vegetation management.

Response: (IIE4). See the 1986-90 FEIS, Volume I, page 2-66. For a further discussion of fish habitat management, see the Forest Service Handbook 2609.24, "Aquatic habitat Management Handbook", June 1986, which is part of the planning record for the 1986-90 FEIS. See Phase II responses relating to site specificity for specific comments on how the Aquatic Habitat Management Units (AHMU) management approach provides for the determination of a site-specific prescription tailored to fit the conditions on-the-ground while the NMFS policy mandates a rigid minimum 100 foot buffer to be applied to all anadromous streams and tributaries, regardless of the on-the-ground situation.

5. SCLDF. Need new data on wildlife populations, harvest levels, sensitivity to disturbance.

Response: (IIE5). See Response IIE3.

6. SCLDF, SSF&GAC, COTS. Brown bear and fish populations and habitat needs.

Response: (IIE6). See Phase II site-specific analyses and original FEIS documents.

7. CPA, COTS. Lack any discussion on fish stream impacts.

Response: (IIE7). See Phase II site-specific analyses and original FEIS documents. See Response IIE1.

8. NOAA. Include pink salmon and their habitats--more discussion of habitats of commercially important species.

Response: (IIE8). See Phase II analyses and original FEIS documents.

9. SCLDF. Questions deer numbers for East Kuiu (too high)-need to get and use actual census numbers.

Response: (IIE9). We agree that the figure is too high for the number of deer now inhabiting Kuiu Island. The number being questioned is the number portraying the population of deer that could be supported by the available habitat. However, due to several severe winters, some of which occurred during the 1968-72 period followed by winters such as 1982, combined with poaching and predation, the current deer populations on Kuiu Island are much less than the number that could live there.

10. SCLDF, JM, WS. Table 4-7 needs to cite source. If its the same deer habitat mode as for 1986-90, then its invalid. If it is a new model, it needs to be subject to analysis and scrutiny.

Response: (IIE10). See Chapter 4, page 4-32 regarding the model used in Draft Phase I. The deer model used for 1986-90 has not been proven invalid through either the appeal process or litigation. The model used in Phase I is a draft model developed jointly by wildlife biologists from both the Forest Service and Alaska Department of Fish and Game. The draft model is still in the process of final verification, validation, and scientific review. Lack of such final review does not render the model invalid. See Response IIE2 and the Phase II discussion of Data Adequacy and Use of Models.

11. SCLDF. Data are only a rework of 1986-90. Graphs should show past, present, and proposed harvest together, rather than showing isolated proposed.

Response: (IIE11). See Phase II displays where this is done.

12. JM, CPA. Need to analyze deer winter habitats and populations after a severe winter.

Response: (IIE12). See the Habitat Capability Model for Sitka Blacktailed Deer in Appendix H of the Draft Phase I document. Table 3 of the model gives coefficients for various combinations of habitat characteristics and winter conditions. See the Phase II discussion of Data Adequacy and Use of Models. (See also, Consolidated Appendix, Volume III, E-1)

13. CPA. Need to do comparisons based on volume not only acres. Tables need to show volume, location and comparative values of those acres to wildlife.

Response: (IIE13). Displays found in Phase II documents show past, presently planned and proposed harvest acreage by volume class and by habitat.

14. JM. Need to have discussion/analysis of forest habitat and how it varies over contract area.

Response: (IIE14). See Response IIE12 regarding the deer model coefficients for various forest habitat conditions on various aspects and elevations.

15. JM, WS. Address accuracy of deer population numbers. Phase II should show population effects, not only habitat ones.

Response: (IIE15). See Response IIE2, IIE3, and IIE9. See Phase II documents for effects on populations.

16. JM. Carrying capacity over large area does not reflect site-specific differences. (Duplicate).

Response: (IIE16). See Response IID2.

17. JM. Need to look at long-term estimates of deer habitat (life of contract) to see what effects all the cutting will have.

Response: (IIE17). See Response IIC1. The NEPA requirement for analysis of reasonably foreseeable and cumulative effects relates to the longer-term effects of the proposed actions. Some people feel the reasonably foreseeable future effects should also include site-specific data regarding actions not being proposed at the present time, but at some time in the future. Although such future projections might be made using a MELP-type database analysis, the likelihood of such a projection actually happening is very speculative because of legal direction to revise Forest Plans every 10 to 15 years. As TLMP is in this revision process at this very time, there is even greater likelihood that such projections, as based on the TLMP now in effect, would be even more speculative.

18. WS. Need to address wildlife habitat retention consistent with TLMP. Use KPC 1989-94 as model to display wildlife habitat.

Response: (IIE18). The "Tongass Land Management Plan, Amended Winter 1985-86, Appendix D", contains a detailed discussion of Retention. This Appendix describes procedures for implementing wildlife and fisheries retention. Appendix D contains a key statement that says, in part, that the objective is to:manage key areas of essential habitat for wildlife and fish species, primarily old-growth forest, within areas that would otherwise meet timber scheduling criteria". The 1986-90 FEIS designated site-specific areas, located on maps and therefore locatable on the ground, that were to be managed with the following prescription:

"No Harvest" or other appropriate prescriptions to maintain old growth habitat conditions will apply during the 1986-90 operating period, unless the stated management direction is modified after further NEPA analysis and public disclosure."

The Supplementation of the 1981-86 and 1986-90 FEIS documents was not intended to bring such documents up to the "state of the art" as may be found in newer documents. The procedures used to designate wildlife habitat have not been found to be flawed in these documents.

19. JM. Need to specify duration and habitat quality.

Response: (IIE19). The areas of identified habitat are expected to retain their existing quality into the foreseeable future, barring acts of nature or changes in land management policies necessitated by unknown future changes in public opinion or needs of goods and products from the National Forests. As no

forest is static, one will expect changes to occur naturally over time. Prediction of such changes would be theoretical, at best, and would provide no known meaningful display of data that would be useable in deciding the decision at hand. See also Response IIE18.

20. JM, WS. Define and explain relationships between old growth habitat, forested habitat, winter range and "deer winter range".

Response: (IIE20). See the Glossary in Draft Phase I (or Glossary in FEIS) for the definitions of old growth habitat, forested habitat, and deer winter range. The definition of "winter range" is the same as for "deer winter range".

Forested habitat includes all areas with forest cover, while old growth habitat is a part of forested habitat and "deer winter range" is that part of old growth habitat having the characteristics of deer winter range.

21. JM. Show distribution of habitats and how much winter range is to be maintained over time.

Response: (IIE21). See Phase II documents, Chapter 4, Environmental Consequences for site-specific information on a VCU by VCU basis. Maps of the distribution of habitat are a part of the planning record and are available for review by the public.

22. JM, WS. Address deer model. Does it only look at "best case"? There is predation that was not considered.

Response: (IIE22). Draft Phase I, Chapter 4, page 4-32, discusses the deer model. See Draft Phase II Appendix C-4 for discussion of predation.

23. DOI. Need to evaluate cumulative effects of new logging roads on brown bear and hunter harvest patterns in Hoonah area.

Response: (IIE23). See Phase II analyses.

24. WS, CPA. What are the pink areas on the maps and how were they identified?

Response: (IIE24). See map legends in Draft Phase I, Chapter 4. The "pink areas" are the areas identified in the 1986-90 FEIS that were to be managed to provide old growth habitat conditions. See Response IIE18.

F. Cultural Resources.

1. SCLDF. Cultural Resource Surveys and Impact Assessments need updating. Sites need to be identified and mapped. Need to do surveys and display results in SEIS.

Response: (IIF1). The Draft Phase I (Chapter 3, page 22) document states:

Cultural resources include evidence of past human activities, dating from the first habitation of Southeast Alaska. A literature and records search was conducted to determine known cultural resources. Field surveys were conducted to discover new cultural sites. Within the existing boundaries of the APC Contract Area, 286 known cultural resource sites exist. The findings are presented in Figure 3-5. The primary sources of this information are the National Register of Historic Places, the Alaska Heritage Resource Survey, and field surveys conducted between 1974 and 1986.

There are maps displaying this information but such information is not available for public review in order to decrease the risk of theft or vandalism of the cultural resource.

G. Permits and licenses.

1. SCLDF. Need to explicitly describe and analyze all permits and licenses. Why does it take so long to get permits?

Response: (IIG1). "Permits and licenses" are found in Draft Phase I, Chapter 1, page 5. Details of the various permits and licenses may be found in the planning record. It is not feasible to describe and analyze all of the various permits which are a necessary part of timber harvest operations. To do so would diminish the meaningfulness of this document.

The permits and licenses are issued by various state and federal agencies. Process-wise, getting a log transfer facility (LTF) permit involves tasks such as gathering information (diving, core sampling), final site selection, and final survey and design. The application must then be tendered to the Army Corps of Engineers which begins a lengthy process, including public involvement.

This involvement of multi-agency review and approval at both the federal and state levels, particularly for structures such as LTF's, creates a very lengthy application and approval period. A LTF permit will involve the timber sale purchaser, Forest Service, Army Corps of Engineers (COE), U.S. Environmental Protection Agency (EPA), National Marine Fisheries (NMFS), and various State of Alaska offices such as the Department of Environmental Conservation (DEC), Alaska Department of Fish and Game (ADF&G), and Department of Natural Resources (DNR), as examples.

H. Monitoring and Mitigation.

1. SCLDF. Need to discuss ADF&G Report No. 86-1 and our own efforts in both Phase I and II (varying levels of detail).

Response: (IIH1). This report is titled, "A Review of Measures Implemented by the U.S. Forest Service to Protect Fish and Wildlife Resources of Southeast Alaska", by Joseph G. Doerr and Marilyn J. Sigman, Division of Habitat, March 1986. The objective of this 161 page report was to review those measures that have been included in NEPA documents by the Forest Service between 1979 and 1985 to protect fish and wildlife resources. It should be noted there was no field review undertaken in the preparation of this report (pg 1 of the report).

This report contains an excellent display of the activities relating to various measures being planned for implementation by the Forest Service on a large cross-section of 37 timber sales located across the Tongass National Forest.

Individuals have misconstrued the findings of this report, which indicates that many planned monitoring activities have not been accomplished, as a failure of the monitoring process. An unbiased review of this document will show that many of the planned monitoring activities reviewed by Doerr and Sigman had not been implemented because many of the sales reviewed had never been sold or, if sold, had little or no harvest activities accomplished by the time of the office review that resulted in this report.

Many of the mitigation measures have been used for years and their effectiveness has been adequately demonstrated. Others which may not have a long history of implementation represents best estimates of measures which are likely to be effective. Doerr and Sigman has a general listing of mitigation measures that have been implemented on various timber sales beginning on page 134. This listing shows that mitigation measures found in the 1981-86 and 1986-90 FEIS's have been widely accepted on other sales on other areas of the Forest.

A detailed discussion of Standards and Guidelines, Monitoring and Mitigation Measures may be found in the 1986-90 FEIS, Volume I, beginning on page 2-66. Also see Phase II documents for additional discussion and directions relating to this issue.

2. SCLDF. Need to address changes in plans after the final NEPA document.

Response: (IIH2). The decisions to change the unit boundaries results from on-the-ground implementation of the Records of Decision and location of the harvest unit as planned on the site-specific field unit cards. Harvest units are not moved.

3. JM. Need to display measures used to mitigate.

Response: (IIH3). See existing 1986-90 FEIS, Volume I, Subsection 2c, page 2-66 and Volume III, Appendix C. Also see Phase II documents, Chapter 4, Mitigation.

4. JM. Need more than a summary of standards and guidelines.

Response: (IIH4). This comment is directed at a summary statement relating to the contents of Chapter 2. Please review the existing NEPA documents related to the 1981-86 and 1986-90 FEIS's for detailed discussions of Standards and Guidelines.

5. JM. Monitoring should address whether it's applied and whether it's successful.

Response: (IIH5). See Response IIH1.

6. JM. Need to summarize, indicate, refer to modifications made at field level--monitoring information made available.

Response: (IIH6). See Response IIH1.

I. Inconsistent Analysis.

1. SCLDF. At one point new camp is barrier but in another section it makes no difference.

Response: (III1). The reason a new logging camp is a constraint in one situation and not another is the availability of timber and ability to tie transportation systems together. The timber available in other South Kuiu VCU's does not justify the cost of development of camps at this time. Timber harvest in VCU's other than 416, 417, 418 and 419 would best be done by small operations from small camps. It is difficult at best to tie transportation systems together in other South Kuiu VCU's, hence large scale operations are limited.

J. Affected environment.

1. SCLDF. Need new information, not just a rehash of prior EIS's information which has been shown faulty.

Response: (IIJ1). Phase II will provide additional information.

K. Roading.

1. SCLDF. Need to analyze the 40 miles of road built since 12/31/86, separately, and as part of cumulative past and future road networks.

Response: (IIK1). See Phase II documents and parent FEIS for cumulative effects analysis. Roads are merely the means by which hunters access areas where they kill deer and bear. It is the hunters, by their activities, who take animals that otherwise might not be taken. Hunting is an activity on the National Forests which is regulated by laws and regulations developed by the state in which the national forest is located. It is the function of the state resource managers to make adjustments to their regulations to promote the conservation of the fish and game populations inhabiting the National Forests. This is exactly what happened when the State of Alaska Department of Fish and Game changed the hunting regulations in the Hoonah area.

L. Activities on Adjacent Lands.

1. SCLDF. Discussion in Chapter 4 of native logging and its impacts on National Forest land is inadequate. How does nearby native logging affect suitability on Phase II areas?

Response: (IIL1). See Phase II analysis.

M. Economic Analysis.

1. WS, NOAA, COTS. Need "separate and equal" analysis of economics of timber, fish, subsistence, and tourism.

Response: (IIM1). See Phase II documents.

2. JM. Need to clarify and analyze relationship between logs and cants. Are they complimentary or substitute products?

Response: (IIM2). Unprocessed logs remain the preferred product. See Chapter 3 in Phase II documents for tables displaying relative volumes and values of cants and logs. One will note that as demand goes up, both products reflect complimentary increases in both volume and value relative to the overall increase in demand. It is anticipated that, as production of logs from harvest activities on private lands declines in the near future, there will be a reduction in the volume of logs sold with an increase in the volume of cants and lumber, with both still reflective of the overall market demand. This will be the reverse of the pattern that occurred beginning in 1979-80 when the volume of cants decreased as the availability of unprocessed logs from private lands increased.

3. JM. Need to establish price/quantity relationship.

Response: (IIM3). See Response IIA1. There is no need for this information as substitution of volume is not an option being considered.

4. JM. Need up-to-date and more information on product values.

Response: (IIM4). See Phase II documents, Chapter 3, for volume and value information through 1988.

5. JM. table needed with value and quantity of log, chip, lumber, and pulp exports from 1977 through 1988.

Response: (IIM5). See Response IIM4.

6. JM. Break out Japan housing starts.

Response: (IIM6). See Phase II, Chapter 3 for this information.

7. JM. Update Alaska pulp market share to 1988.

Response: (IIM7). This information does not appear relevant to deciding the decision at hand.

8. WS. Need to clarify that Japan is big market (pg 3-10).

Response: (IIM8). It is acknowledged that Japan, and other Far East countries of the Pacific Rim market, compose a large market area for timber and other natural resource products such as fish that are produced in the State of Alaska.

9. WS. Need to tell what exports were from Southeast Alaska and then from the Tongass National Forest.

Response: (IIM9). See Phase II, Chapter 3 and supporting documents such as the Timber Supply and Demand Draft 1988 Report included as part of the planning record.

N. Log Transfer Facilities.

1. DOI. Development of new LTF's requires additional analysis and Phase I database is insufficient for this.

Response: (IIN1). See Phase II analysis. This is also one of the reason some Analysis Areas were not recommended for the Phase II analysis.

2. DOI, NOAA. Include Alaska Timber Task Force guidelines in Appendix G and include the discussion of criteria.

Response: (IIN2). The Alaska Timber Task Force Guidelines are in the planning record.

3. DOI. Analysis of alternative LTF's, especially Chatham's is inadequate. The analysis should be more like the Stikine Area's.

Response: (IIN3). Appendix G is not an analysis of alternative LTF's. It is an evaluation of existing and previously planned but not constructed LTF's. Phase II will use the Guidelines for a detailed review of each alternative LTF being proposed in the Phase II analysis.

4. DOI. New information in USFS publication, "Relationship Between Bark Loss and Log Transfer Methods", needs to be considered.

Response: (IIN4). Phase II analyses will consider this document.

5. DOI. Analysis of new False Bay LTF needs to be included in evaluation.

Response: (IIN5). The Environmental Assessment for the False Bay and the Seal Creek LTF's are included in Phase II documents for Analysis Area 3.

6. NOAA. Clarify what "yes" and "no" evaluation mean in Appendix G.

Response: (IIN6). This is a work document and respondent is correct that "yes" and "no" comments are not clear. They refer to how the evaluation responds to the ATTF guidelines. For example: On page G-1 the "NO" for S1 means that there are no anadromous streams within 300 feet of the project. On the same page the "YES" for S5 means the project meets the ATTF guidelines listed.

7. COTS. Clarify what standard for petroleum discharge means (see L "Operating Guides" and oil spill cleanup, records, and reports.

Response: (IIN7). C-9, Control of Hydrocarbons deals with the discharges which result from the normal operation of machinery in and near the water. All machines produce petroleum products in the form of exhaust products and from leakage. These discharges cannot be eliminated but can be minimized by proper maintenance and operation. Monitoring and recording sightings of oil sheens, etc., will provide an indication that the possibility of a more severe situation may be developing. Preventive maintenance can then reduce or remove this risk.

III. A. Writing and clarity of the SEIS.

1. SCLDF, JM. Need to explain the parameters/constraints on SEIS at its start and explain how it fits in with the TLMP revision. Address whether SEIS gives management direction for the first five years of the TLMP revision.

Response: (IIIA1). The SEIS is not linked formally to the on-going revision of the Tongass Land Management Plan. On a different level, however, there will be opportunities to share information which is being developed by both actions. For example, certain information on subsistence will be available for analysis in the TLMP revision process.

The SEIS is tiered to TLMP Amended, Winter 1985-86. This is the approved forest plan and will be in effect until final approval of the revised Tongass Land Management Plan sometime in the future. The draft revised TLMP is scheduled to be completed in December 1989 with the final revised TLMP being approved sometime after that. The SEIS effort will apply through December 31, 1990.

2. SCLDF. Need to more fully expound on why areas were eliminated from detailed evaluation, not to simply state "logical constraints". SCLDF alleges five unstated and unexplained assumptions lie behind the Phase I analysis.

Response: (IIIA2). See Responses IA1, IB7, IB8, IIA1, IIA2, IIA4, IIA5, IIA11, IIA12, IIA19, and IIA20. The reasoning that went into the Phase I analysis has been explained in the Phase I document.

3. SCLDF. Desires that the alleged assumptions be brought out into the open and discussed.

Response: (IIIA3). See Response IIIA2.

4. SCLDF. Explain why it takes so long for permits from LTF's and distinguish new site and reactivated site.

Response: (IIIA4). See Response IIG1. A new LTF site is one where no LTF has ever been in operation. A reactivated site is one where some type of LTF has been built and operated in the past. Remnants of the LTF may or may not be visible on the ground.

5. SCLDF. Explain "uneconomical" as reason for not considering an area further.

Response: (IIIA5). See Response IIA8 regarding "high-grading" and Response IIB8 regarding "uneconomical".

6. SCLDF. Need to clarify that Chapter 2 quotes prior EIS's.

Response: (IIIA6). See Draft Phase I, Chapter 2, page 3, that states, in part:

"This section quotes directly from the 1981-86 FEIS..."

and, on page 2-11, that says:

"Review of the 1986-90 EIS....".

7. SCLDF. USFS needs to bring these (alleged) "assumptions" out in the open and discuss them. (This is a duplicate of IIIA3)>

Response: (IIIA7). See Response IIIA3.

8. SCLDF. SEIS should cover all Analysis Areas as it has the ones here (the ones for inclusion in Phase II) to at least the same degree of detail.

Response: (IIIA8). See Response IIA10.

9. SCLDF. Why does SEIS provide 550.3 MMBF when contract only guarantees 525 MMBF per operating period?

Response: (IIIA9). The SEIS effort does not provide 550.3 MMBF. The January 4, 1985 Agreement established that not less than 700 MMBF of sawlog volume be appraised for the 1986-90 Operating Period. There was actually 697 MMBF appraised which consisted of both carryover and volume cleared under the 1986-90 FEIS. The SEIS process is to complete a supplemental NEPA analysis that will provide a minimum of 229.9 MMBF. See Appendix B in Draft Phase II documents (See also, Consolidated Appendix, Volume III, F) and expanded discussion in Final Phase I. See also Response IIB3.

10 and 11. SCLDF. Explain/justify the timber yield values assigned to each area and the allocations of timber between them.

Response: (IIIA10 and IIIA11). The volume "now available" is the volume cleared through various EIS's that has been determined by the court to not need supplemental NEPA analysis. The estimated output volumes was developed by analyzing each Analysis Area to determine its potential to provide volume for the balance of the plan period. The range of volumes displayed for each Analysis Area reflect this potential. A Multi-entry Layout Process (MELP) was used to determine this range of volumes.

12. JM. Clarify for the 1981-86 when APC used other sources of timber and the Forest Service waived the 70% requirement of the contract. Is the 70 % requirement tied to the National Forest System, the Tongass National Forest, or the APC contract area?

Response: (IIIA12). The January 4, 1985 Agreement waived the 70% requirement by establishing 29% as the percentage of volume to be cut from the APC Contract Area for the 1981-86 Operating Period. The 70% requirement applies to the APC Contract Area. See Responses IIB1, IIB3, and IIB5.

13. SCLDF. The text with tables in Chapter 3 needs to explain how much of an area has been, is being, and could be logged under each alternative being considered in Phase II.

Response: (IIIA13). See Phase II analyses.

14. SCLDF. Set forth clearly the Phase II alternatives.

Response: (IIIA14). See the Phase II documents for various Phase II alternatives.

15. JM. Use of tiering makes it so that too much is omitted which makes it too difficult to piece all the documents together.

Response: (IIIA15). See Response IB5.

16. CPA, LE. DSEIS is too voluminous for the actual content it provides.

Response: (IIIA16). In review of other comments, there appears to be an opinion that not enough information was provided in the Phase I document.

17. JM. Need consistent and correlated references to the 1981-86 and 1986-90 alternatives.

Response: (IIIA17). Comments noted.

18. JM. WS. Need to explicitly define CFL.

Response: (IIIA18). For a detailed definition of CFL, see the Glossary for the 1986-90 FEIS, Volume III, pg GL-2.

19. LE. DEIS lacks flow of thoughts. Nothing binds it together.

Response: (IIIA19). See Responses IA1 and IB5.

20. SSF&GAC. SEIS is not readable for general public.

Response: (IIIA20). See Responses IA1 and IB5.

21. JM. Clarify how the 1947 Act and the 50-year contracts are background.

Response: (IIIA21). Review of the General Terms of the Ketchikan Pulp Company Agreement shows the following:

"The parties entering into this Agreement pursuant to the...Act of August 8, 1947..."

and

Review of the General Terms of the Alaska Lumber and Pulp Company contract shows the following:

"...the Forest Service agrees to sell, pursuant to...the Act of August 8, 1947..."

"Pursuant" as defined in Black's Law Dictionary is "to carry out in accordance with".

The Act of August 8, 1947 is known as the Tongass Timber Act. The Act describes itself as "A joint resolution to authorize the Secretary of Agriculture to sell timber within the Tongass National Forest".

22. JM, WS. Identify areas in Table 3-3 by geographic name, not just VCU number and separate planned versus constructed road mileage. Reference to unit numbers alone is meaningless without a map.

Response: (IIIA22). As VCU's are the basic planning units of TLMP and as geographic names are meaningless descriptors without identifiable boundaries, geographic names are of only interest and are not useful as site-specific planning tools. Maps provided with Draft Phase I are annotated with VCU boundaries and numbers. Also, maps with VCU boundaries do not usually have the geographic names of the VCU. This table is revised in the Final Phase I document to show road construction status.

23. JM. All the tables in all the Analysis Areas need to be consistent.

Response: (IIIA23). You are correct. The Final Phase I will try to clarify the content of each table.

24. JM. Is Alternative J really the best one to use in summarizing remaining harvest units?

Response: (IIIA24). As Alternative J, as modified by the ROD, is the alternative selected for the 1986-90 Operating Period and contains the majority of acres remaining unharvested, there is no other better alternative to use.

25. WS. Define the term "practical timber".

Response: (IIIA25). "Practical timber" is timber which is capable of being harvested within the time remaining in the 1986-90 Operating Period.

26. WS. Tables are missing for some Analysis Areas.

Response: (IIIA26). See Response IIIA23.

27. WS. Clarify, define and consistently use the terms: "not considered", "non-deferred", "partially deferred", "NOI deferred", "ROD postponed", and "Notice of Intent Non-deferred".

Response: (IIIA27). Definitions of the above phrases, some of which may be found in the Glossary of Phase I, are as follows:

1. ROD postponed: Timber harvest and/or road construction in these VCU's was postponed by the 1986-90 Record of Decision.
2. Notice of Intent: Notice of Intent (NOI) to produce an EIS Supplement to the 1981-86 and 1986-90 Operating Plan Environmental Impact Statements for the Alaska Pulp Corporation (formerly the Alaska Lumber and Pulp Company). The NOI was signed on September 30, 1987. Includes list of VCU's in which activities will continue during the SEIS effort and a list of VCU's where no further implementation of existing decisions will occur during the SEIS effort.
3. Deferred VCU's: (Also known as NOI deferred VCU's). A deferred VCU is one in which further road construction and/or timber harvest activity would be deferred until the SEIS effort is completed as required by the Court.
4. Non-deferred VCU's: (Also known as NOI non-deferred VCU's). These are VCU's in which road construction and/or timber harvest activities may continue to occur without further NEPA analysis during the SEIS effort.
5. Partially deferred VCU's: Those VCU's such as VCU 204 and 419 that were divided with specific portions of the VCU being either deferred or non-deferred by the NOI.

28. WS. Define "serialized".

Response: (IIIA28). The word "serialized" is used in the 1981-86 FEIS, page 45-46, to describe the prioritization of entry into proposed harvest units to meet volume commitments for the 1981-86 Operating Period. "Serialized" or "serialized units" is defined in the Glossary which states:

"Units which, while covered by an EIS, are not appraised but are reserved. If, because of changed market conditions, not enough appraised timber is available during the 5-year Operating Period, the serialized units could be made available (to meet contractual requirements).

29. JM. SEIS needs to clarify: 1) What areas it is analyzing, 2) What its cumulative effects analysis covers, and 3) Where in Phase I or II this analysis will take place.

Response: (IIIA29). See Draft Phase I, Chapter 2, pages 1 and 25 for the areas being analyzed. See Phase II for cumulative effects analysis.

30. JM. Need to directly and clearly address the serialized units in the SEIS.

Response: (IIIA30). Phase II site-specific analyses will consider serialized units, if any exist as portions of viable alternatives. Many serialized units lie in areas where implementation of existing decisions preclude consideration of harvesting such serialized units in the near future.

31. JM. Need to clearly address APC 1985 Agreement and explain actions related to it.

Response: (IIIA31). The Agreement was published as an Appendix. We would refer the commentator to the Agreement for a complete reference to the text. (See Draft Phase I, Appendix C; and Consolidated Appendix, Volume III, F) See also Responses IIB1 and IIIA12.

IV. Opposition to Position.

1. SCLDF. Oppose completion of Kadashan road and logging of that drainage.

Response: (IVA1). See Phase II Analysis Area 6 documents for the site-specific consideration of activities in the Kadashan drainage.

2. PFC. Oppose activity in Lisianski and hope prior decision to defer action there is continued.

Response: (IVA2). It is noted that the Pelican Forestry Council is opposed to road construction and timber harvest in the Lisianski area. The Phase II analysis is not considering any alternatives that contain road construction and/or timber harvest activities planned for the Lisianski area.

3. SCLDF. There should be no logging in VCU's 416, 417, or 418.

Response: (IVA3). See Phase II Analysis Area 12 documents for proposed road construction and/or harvest alternatives planned for these VCU's.

4. JS. Wants all of the Tongass National Forest designated as Wilderness.

Response: (IVA4). This request was eliminated from detailed study because it cannot be implemented by the Forest Service as part of this analysis. See APC 1986-90 Operating Plan FEIS, Volume I, Section 2, page 5.

5. JS. Wants APC contract voided.

Response: (IVA5). See Responses IIA6, IIA7, and IVA4

6. SSF&GAC. Defer East Kuiu Island, Trap Bay, and Kadashan until Congress deals with them.

Response: (IVA6). See Phase II Analysis Areas 6 and 12 documents for proposed road construction and/or harvest alternatives planned for these VCU's.

7. NOAA. Put LTF elsewhere than Ushk Bay because its king crab habitat.

Response: (IVA7). Analysis Area 5, which includes Ushk Bay, is not being further considered for road construction and/or timber harvest for the remainder of the 1986-90 Operating Period.

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for

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ALASKA PULP CORPORATION

P.O. BOX 1050 • SITKA, ALASKA 99835

11/1/88

TM

#1

October 24, 1988

Mr. Michael Barton
UNITED STATES FOREST SERVICE
P. O. Box 21628
Juneau, Alaska 99802-1628

Dear Mr. Barton:

This is Alaska Pulp Corporation's (APC's) response to Phase I of the Supplemental Environmental Impact Statement (SEIS) to APC's 1981-1986 and 1986-1990 five year operating period plans.

BACKGROUND - APC'S OPERATIONS CRITERIA

APC's production is geared to the needs of the Wrangell Forest Products Company's sawmill, which relies heavily on APC's fifty-year sale to meet its sawlog requirements. The sawmill consumes 105 MMBF of sawlogs per year. From its 50 MMBF of timber under contract (half the timber harvested is sawlogs, the remainder is pulp logs), WFP will get 25 MMBF of its needs. At full production, the pulp mill needs 145 MMBF of timber. Of this, 60 MMBF of pulp logs will come from the reduced APC overall harvest of 120 MMBF; the equivalent of 55 MMBF will come from WFP in the form of pulp logs (15 MMBF) and chips (40 MMBF); and the remaining 30 MMBF will come from the State, other Forest Service and Native lands.

In meeting the above log needs, APC must prepare an operating plan by which each of its four operations provides a share of the volume based on the amount of equipment which that operator has available. To provide a continuous supply of timber from its camp, each operator must construct sufficient road ahead of the timber harvesting operation so that there is always a place to harvest.

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U.S. FOREST SERVICE
SITKA, ALASKA

Mr. Michael Barton
UNITED STATES FOREST SERVICE
October 24, 1988
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THE CURRENT TIMBER SUPPLY SITUATION

APC's problem pending completion of the SEIS is twofold: Sawlog availability and distribution of the timber among APC's four camps. APC is currently harvesting timber at 80% of capacity. There is approximately 248 MMBF of timber which has been made unavailable for harvest until completion of the SEIS in May 1989. If this is not completed on schedule, or Title III of HR 1516 is enacted into law next year, APC will be at 50% capacity in its logging in 1989. That is to say, the Forest Service will be able to provide only 50% of the timber to which APC is entitled under the contract. This in turn will have a major adverse affect upon the WFP sawlog supply as well as APC's pulp log and chip supply.

APC plans to obtain the above log volumes during the period calculated from April 1, 1988 until May 1, 1989 when the SEIS is complete, as follows:

Operation	VCUs		Net Volume Need Thru 5-1-89	Net Volume for Pre-Roading	APC's Estimate of Presupplemental EIS Economically Available Timber
	209, 210, 212	213, 214, 215, 217, 218, 219			
Whitestone Logging	209, 210, 212		42 MMBF	27 MMBF	127 MMBF
Blackwell Inc.		213, 214, 215, 217, 218, 219	20 MMBF	15 MMBF	54 MMBF
Silver Bay Logging	201, 202, 222, 223, 236, 239		20 MMBF	15 MMBF	30 MMBF

1 5 MMBF of this volume is in VCU 239 (Kook Lake) and will not be available if the USFS does not construct the road in a timely manner.

APC (Rowan Bay) 398, 399 32 MMBF 24 MMBF 39 MMBF 2
400, 402,
419, 420,
421

The above chart demonstrates that there is sufficient non-controversial timber available along the roads which the Forest Service has agreed to construct in advance of the supplemental EIS so that Whitestone Logging and Blackwell Incorporated will not be adversely impacted by awaiting authority to harvest more timber and build more road. This assumes that the Record of Decision is modified to permit a low angle log transfer facility at Seal Creek and the Corps of Engineers permit is modified as APC proposed in July 1988. Whitestone will provide 40 MMBF of timber in 1988 and Blackwell will provide 20 MMBF in 1988. This is the maximum each can provide based upon the equipment which is and can reasonably be put in their area.

Silver Bay will have sufficient timber provided the Forest Service road construction in Kook Lake is completed to the first two (2) units by Spring 1989. The timeliness of the Forest Service's road contractor will determine whether Silver Bay and Rowan Bay will have sufficient units to harvest in 1989 after completion of the SEIS.

The point is that it is critical that the Forest Service complete the SEIS on time. Unless the SEIS is completed by May 1, 1989, the Silver Bay and Rowan Bay operations will not have sufficient cleared timber to continue operations.

ANALYSIS OF THE FOREST SERVICE'S SEIS VOLUME ESTIMATES FOR THE PERIOD MAY 1, 1989 THROUGH DECEMBER 31, 1990

On Page 32 of Chapter Two of the SEIS, the Forest Service estimates the volume to be included in Phase II. It states that 550.3 MMBF is needed for the 1986-1990 period, that 320.4 MMBF is now available and that Phase II will study 230 MMBF in additional volume. APC believes that this estimate is incorrect and that in

² There is an estimated 19 MMBF in North and South 3-mile that are contingent on Forest Service construction.

fact the Forest Service must supply approximately 270 MMBF to cover APC's volume needs from May 1, 1989 through the end of the operating period. This is because 320 MMBF is not presently available as claimed in the SEIS.

APC has determined what is presently available by two separate methods. First, APC has determined that the following units were not available as of December 31, 1987 as represented by the Forest Service in the SEIS for the following reasons:

VCU	UNIT	RAC ³	REASON
201	6	45	These are unappraised units which the
202	13	32	U.S.F.S. and APC have agreed will not be
			counted.
202	15	39	U.S.F.S. and APC have agreed will not be
			counted.
202	16	32	U.S.F.S. and APC have agreed will not be
			counted.
202	136	14	FS (HRD) deleted for soil problems.
204	95	21	FS (HRD) deleted for Sealaska
			overselection.
208	3	11	FS (HRD) deleted for HTC overselection.
208	4	22	FS (HRD) deleted for HTC overselection.
209	17J	39	This is an unappraised unit. ...
213	D3	29	FS (HRD) deleted for soils, eagles,
			wildlife.
213	D4	55	FS (HRD) deleted for soils, eagles,
			wildlife.
215	H12	59	Seal Creek tie road - FS decided not to
215	H13	13	construct - APC cannot log
217	3	56	FS (HRD) deleted for wildlife.
239	7	127	Deleted by FS for soils.
419	D10(193)	100	Scrub timber (8-12 M/A) & no FS road
			construction.
419	D11(194)	73	1968 blowdown with 20' reproduction in
			most of unit.
17 Units		1037	Acres = 30 MM @ 29.1 M/A 4

³ RAC = Remaining Acres to Harvest.

⁴ Tables 3-14, 3-15, 3-20, 3-21, 4-3 and 4-12 all contain volumes and acreage that have been deleted and need to be modified to represent the actual volume available.

In addition to this 30 MMBF difference in the volume available, there has also been a 10 MMBF reduction from other units on the allotment since the Record of Decision was signed due to a reduction in the acres released versus the acres appraised.

Accordingly, there is more than 40 MMBF included as presently available in the SEIS calculations, which is in fact not available to APC. Thus, approximately only 280.4 MMBF is now available. By subtracting the 280.4 MMBF currently available from the 550.3 MMBF needed, it is clear that the SEIS needs to provide a range of minimum of 270 to 300 MMBF to carry APC through the 1986-1990 period.

The second method of computation reaches essentially the same result:

APC scaled volume 6/30/88	2,276,502M
APC unscaled volume 6/30/88	+9,000M
Total APC logged volume 6/30/88	2,285,502M
Projected 7/1/88 - 12/31/88 harvest volume	+66,000M
Projected scaled volume 12/31/88	2,351,502M
Volume logged as of 12/31/85	2,140,433M
Appraised 1986-1995 volume	+696,500M
Volume available through 12/31/90	2,836,933M
Volume logged 12/31/88	-2,351,502M
Amount APC has a right to log under the contract	485,471M
Volume available under the contract	485,471M
APC Estimate of 1/1/89 volume actually available	-187,000M ⁵
Volume SEIS must supply	298,471M

⁵ This figure assumes that APC has harvested approximately 100 MMBF in calendar year 1988.

CHANGES NEEDED IN THE SEIS VOLUME DISTRIBUTION

It is APC's understanding that in the SEIS, the Forest Service was going to attempt to clear existing volumes; substitute like volumes in other areas; or propose a combination of both; as long as the volume requirements of the contract as portrayed in the 1981-1986 and 1986-1990 five year operating periods were met.

The volume appraised and cleared in the 1986-1990 EIS was approximately 697 MMBF. The timber included averaged 29.1 MMBF per acre and with spur roads and specified roads, ran 2,263 MMBF per mile.

APC's review of the analysis areas indicates that the SEIS has chosen a combination of new and existing volumes on most of the analysis areas as a means to satisfy its contractual obligations. Areas previously included, but no longer considered, are in Hoonah Sound and East Kulu (although some East Kulu volume is in a Kulu alternative).

The problem is that the volume requirements are not met and the volume substitutions are less economic than the timber given up. APC is thus requesting that the 40 MMBF volume shortfall identified above be added to the minimum volumes in Analysis Areas 6 and 12. APC is also requesting that the volume proposed for Analysis Area 2 (40MM-50MM) be made available in Analysis Areas 6 and 12 and that the Analysis Area 2 volume be deleted from Phase II analysis for the following reasons.

- (1) The current operator, Silver Bay Logging Co. (Neka Bay), is moving his road construction equipment to Corner Bay, AA6 and will be moving the camp and logging equipment early in 1989. If the ROD is signed for the SEIS on May 1, 1989, the necessary field layout of units and roads in Analysis Area 2 could not be accomplished in time to prevent a cessation of operations for Silver Bay Logging Company.
- (2) APC has reviewed most of the volume tributary to the Neka/8 Fathom TTF and seriously questions the economics and comparability of the timber to that of the deleted volumes.

- (3) Most of the economic volume in Analysis Area 2 is planned for the operator at Hoonah so as to extend the longevity of that camp and thus is not needed at this time.

Mr. Michael Barton
UNITED STATES FOREST SERVICE
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(4) A fifth operation is being planned for entry into No Name Bay and additional volume would enhance the feasibility of this move.

CONCLUSIONS

APC will have barely enough volume through the present to May 1, 1989, assuming that the road contractors into Kook Lake and Rowan Bay complete their work on time. If the SEIS is not completed on time, there will be insufficient volume.

The Forest Service volume estimates of the volume available for the period following the SEIS through the end of the five year operating period are overstated by 40 MMBF. That is, only 280.4 MMBF is available, not 320.4 MMBF. This in turn means that 270 to 300 MMBF must be provided in this SEIS to meet the contract volume requirements for the five year period and APC's volume needs.

APC believes that the; most efficient way to make up the volume shortfall and to provide the volume for the period is to eliminate Analysis Area 2 and provide the volume from Analysis Areas 6 and 12.

Should you have any questions, please do not hesitate to contact me.

Yours very truly,

George
George Woodbury
Woods Division



SIERRA CLUB LEGAL DEFENSE FUND, INC.

255 4th Street
Juneau, Alaska 99801
(907) 586-2751

October 24, 1988

Michael A. Barton
Regional Forester
U.S.D.A. - Forest Service
Alaska Region
Federal Office Building
P.O. Box 21628
Juneau, Alaska 99802-1628

Re: Draft Supplement to the Environmental Impact Statement for the 1981-86
and 1986-90 Operating Periods Alaska Pulp Corporation Long-term Timber
Sale Contract

The Southeast Alaska Conservation Council, the Sierra Club, and the Sierra
Club Legal Defense Fund submit the following comments on the draft Supplemental
Environmental Impact Statement (DSEIS) for the Alaska Pulp Corporation (APC)
1981-86 and 1986-90 Operating Plans.

GENERAL COMMENTS ON THE DSEIS

At the outset, the Forest Service's choice to segment this DSEIS into two
phases has caused significant problems in our review of this Phase I document. The
obvious, fundamental problem with this approach is that the site-specific
environmental analysis which is to inform the Forest Service's decisions has been
deferred to the second phase, while choices to eliminate viable alternatives and
focus on just four sub-areas of the APC contract to provide the needed timber
supply are being made now. Ordinarily, NEPA requires the site-specific analysis of
environmental impacts and comparison of alternatives to precede the decisions
selecting what areas to target for timber harvest. Here, instead, the decisions all
seem to be driven by what will provide the most economic and convenient timber
supply.

Choosing this two-phase approach makes it very difficult for us to provide
meaningful comments on the alternatives selected and eliminated by the Forest
Service since there is no comparative analysis of the resources at stake and how
they would be impacted by roadbuilding and clearcutting. In other words, the
Forest Service has too narrowly restricted the range of alternatives which will be
considered in detail in Phase II of the DSEIS and, given the timber supply
assumptions also included in this document, the choices made here will likely
preordain the outcome regarding which areas will be entered and how intensively.
As we will discuss below, the Forest Service has eliminated large areas from
consideration with no real justification and has utterly failed to consider directing

Michael A. Barton, Regional Forester
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the timber harvest along existing road systems and outside the contract area as the
interim source of timber supply until the next 5-year plan is completed. We urge
the Forest Service to change its approach and expand its consideration of
alternatives in Phase II to include these other options.

Since the DSEIS is more notable for what it does not contain, contain, rather
than what it does contain, our comments at this Phase I stage must of necessity be
general in nature. For example, we can provide very little in the way of comments
on the quality of the environmental analysis, because there is virtually none in the
DSEIS. We therefore reserve the right to revise and expand our comments on
Phase I as appropriate based on the additional information to be presented in the
Phase II DSEIS. However, we feel we must voice our objections to the
impermissible elimination of reasonable alternatives in the strongest possible terms,
now before proceeding to comment on the remainder of the DSEIS.

The Phase I DSEIS appears intended to serve only as a programmatic planning
overview which purports to examine the entire contract area in order to select
certain specific areas in which to do a detailed, site-specific analysis of the impacts
of providing timber to APC. To accomplish this, the DSEIS has only a few major
issues to resolve. First, it must determine how much timber, if any, must be
provided to APC. Next it must assess a broad range of alternative means for
achieving that goal. Finally, it must exercise a reasoned, informed choice between
the alternatives, based on the information gathered.

Unfortunately, the DSEIS fails utterly to resolve any of these questions.
Instead, it starts (without so much as even one page of explanation), by assuming
that the goals of the Forest Service in the Chatham and Sitka areas of the
Tongass National Forest will be best met by providing APC with not less than 229.9
million board feet (mmbf) of timber over and above what is currently available until
December 31, 1990.

The timber supply needs analysis as presented in the DSEIS is basically
unintelligible. It should start by identifying the amount of backlog from prior
operating plans as of January 1, 1987. It should then identify how much timber has
been harvested by APC on the contract area in each of its past two seasons, and
how much of that was backlog and how much 1986-90 authorized timber. Then, the
analysis should identify how much backlog and how much 1986-90 timber is
presently deferred pending the DSEIS and how much was available as of January 1,
1987, (to provide a uniform basis for comparison in the DSEIS). It should also
report how much authorized timber under the 1981-86 and 1986-90 EIS's has been
deleted since it was approved as "uneconomic" to the company or for other reasons.
The DSEIS should identify how much timber (second and third entries) is available
along the existing road system within the APC contract area. Finally, the Forest
Service should disclose whether APC has met the 70% clause in its contract for
timber supply off the national forest for the 1987 or the 1988 seasons. This
information would provide a more reasonable basis for estimating how much new
timber is really necessary between now and the end of 1990.

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afforded a view of what Baranof, Chichagof and Kuiu Islands will look like in the year 2011. NEPA requires this analysis.

The DSEIS also fails to meet the requirements of ANILCA § 810 and NEPA with regard to subsistence use by rural residents. Among our member groups are many individuals who rely upon forest fish and wildlife resources for subsistence. Lacking basic information about the relative use and value of various areas, of the sensitivity of these areas to disturbance or development, and about the scale of proposed logging operations in these places, the DSEIS perpetuates a failure that carries through both the 1981-86 1986-90 previous operating plan EISs and which has spawned two lawsuits.

The DSEIS, like the two EISs before it, still fails to take a serious look at a broad range of reasonable alternatives to the proposed action, including alternatives which do not provide APC with its full contractual timber allotment. Alternative, off-the-contract-area timber supplies are still ignored, as is APC's unique ability to convert some of its current windfall profits into purchases of timber supplies from non-federal lands. In our prior submissions, we have suggested specific alternatives which combine non-APC contract area timber sources with cutting in areas already roaded that meet all of APC's current needs. These alternatives deserve full consideration.

The DSEIS continues to avoid addressing the profound flaws in the wildlife and fish impacts analysis pointed out in the various appeals of the 1986-90 EIS, particularly those issues raised by the Wildlife Society appeal. We note, for example, that there is still no information, that quantifies expected impacts on brown bears on Chichagof Island. This year the Alaska Department of Fish and Game (ADF&G) was forced to close Northeast Chichagof to brown bear hunting because of increased killings largely due to improved access on logging roads. In addition, the adequacy of the deer habitat model has not been demonstrated. No new wildlife census data has been provided. Fisheries and water quality impacts have not been discussed. Monitoring and mitigation, shown to be a failure by an ADF&G study, remains a question mark. Finally, despite real concerns that have now resulted in litigation, cultural resource surveys and impact assessments have not been updated. Will all of this missing information be provided in the Phase II DSEIS?

In sum, the DSEIS does not even attempt to remedy many of the failings of the prior EISs, which have been pointed out repeatedly in comments and appeals to the agency. We urge the Forest Service to broaden its focus from the specific inadequacies found by the court in the *Tenakee Springs v. Courtright* case, and address the concerns raised in the 1986-90 administrative appeal and the recently filed *Honlon v. Barton* case, as well. If the agency persists in refusing to broaden the scope of its supplementation, it unfortunately only invites litigation from appellants whose concerns have not been addressed by the Forest Service when it had the opportunity to do so in this DSEIS.

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II E 2

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Does the 229 million board feet estimated Phase II timber supply goal equal the amount actually necessary to sustain APC's operations for 1989 and 1990, or does it simply constitute the amount necessary to meet APC's contract commitment for the 1986-90 period? Obviously, the Forest Service's arrival at the 229 mmfb figure depends on some key assumptions about how much of APC's timber supply will come from sources other than the contract area. What are those assumptions? Shouldn't a range of timber supply levels be considered in the DSEIS?

Next, the DSEIS explains that of all the potential sources of this arbitrary timber goal, only four will be seriously considered. Providing virtually no means of comparing the various alternatives, the DSEIS bypasses non-national forest sources, non-APC contract area sources, independent sales sources, and numerous sub-areas of the APC contract area, before it identifies merely four APC contract area locations, and potential timber contribution shares for each area. No rationale accompanies these basic and profoundly important conclusions. They are presented to the reader to be taken as articles of faith.

Then, after disposing of two-thirds of its task in the abstract, the DSEIS goes on for some two hundred pages without either describing how the Forest Service calculated it could get 229.9 mmfb from the four areas or what the general impacts of this operation will be. Nor does it compare these impacts with the potential impacts of the summarily dismissed alternatives. Nor does it provide more than wisps of new data on which to arrive at a better decision than in previous failed EIS attempts. In fact, all the DSEIS appears to do after the abstract is review the previous EISs and promise to look at things in greater detail in Phase II, but only for four pre-selected areas.

Unfortunately for everyone concerned, unless this approach is considerably broadened now, Phase II will be too late to reverse the fundamental choices made (apparently in a vacuum) in Phase I. Consideration of site-specific effects in the target areas but not in alternative areas will not cure the deficiencies in the prior EISs. We offer to sit down with Forest Service planners to help identify reasonable goals and alternatives by which to meet timber supply needs while still maximizing protection of the other resources. Again, however, we urge the Forest Service to reconsider its approach before reaching a crisis situation where it needs to provide more timber to APC but has not completed an adequate environmental analysis which considers a reasonable range of alternatives.

In the *City of Tenakee Springs v. Courtright* case and in our appeal of the 1986-90 EIS we raised a number of important points which have yet to be adequately addressed by the Forest Service. This situation continues with the DSEIS. Though we incorporate by reference our previous EIS comments and arguments and evidence in these cases and administrative appeals, a few bear reiteration here.

The DSEIS does not address the long-term, cumulative impacts of completing logging under APC's fifty-year timber sale contract. Though life-of-the-sale planning has been incorporated into the LPA planning process, we have yet to be

II B 3

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Michael A. Barton, Regional Forester
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PAGE SPECIFIC COMMENTS TO THE DSEIS

Abstract and Summary: The tone and content of these sections illustrate the Forest Service's narrow approach to NEPA compliance. Only those few points on which the Forest Service has already lost in litigation will be considered in this DSEIS process, yet a galaxy of unresolved, highly significant issues remain to be resolved. Thus, for example, most of the issues which prompted five major administrative appeals of the 1986-90 APC Operating Plan will continue to plague the Forest Service's administration of this timber sale contract *even after completion of the DSEIS*. If any party later successfully challenges any of those issues, this entire process will be disrupted. We had understood that the purpose of this DSEIS process and the interim timber supply were to afford an opportunity for the Forest Service to fully correct the deficiencies raised not only in the *Tenakee Springs v. Caurright* litigation, but also in the administrative appeals to the 1986-90 operating plan. It appears that this DSEIS has rejected this sensible approach.

The discussion labeled "Alternatives" contains perhaps the most important information in the DSEIS, the calculation of timber "needs" which the Forest Service intends to serve. But nowhere does the DSEIS explain how these calculations have been derived. Moreover, we question the accuracy of the figures presented. Without explicitly stating it, the goal assumes that all alternatives will be consistent with *existing* contract terms. We express our strongest possible objections to this assumption. NEPA, as we have argued for nearly five years now, requires study of all reasonable alternatives. Alternatives cannot be considered unreasonable simply because they do not meet the terms of APC's contract as written today. The Forest Service and APC regularly re-write APC's contract as waive portions of it to satisfy other objectives, and the Forest Service has full power under the National Forest Management Act to make needed changes in the contracts to meet environmental requirements.

Another related error in these underlying assumptions shows up in the listing of "Analysis Areas." All of these are limited to the existing APC contract area, although we have continually urged consideration of areas beyond APC's contract area as one way to reduce the concentrated logging demands on Chichagof, Baranof and Kuiu Islands. We specifically suggest that other areas within the Sitkin Administrative Area be considered, including at least those parts of Kupreanof, Mitkof, and Wrangell Islands which have not been included by SEACC or the Alaska Department of Fish and Game in logging deferral requests. Without question, a second-entry logging operation in Portage Bay, from existing roads, could substitute for some of the volume now required from Kuiu Island. We would ask that such an alternative be included in the Phase II DSEIS.

When reviewing the "Phase II Objective" it becomes more clear how the error of treating contract terms as hard constraints compounds the limitations in selecting harvest areas within APC's contract. Nothing in the DSEIS explains or demonstrates why Analysis Areas 1, 4, 7-11, and 13 will not be considered in Phase II, other than convenience to the operator. Just as the DSEIS fails to look beyond the boundaries of the contract area, it fails to look beyond the bounds of current operation areas. There can be no justification for such narrowing of the scope of

Michael A. Barton, Regional Forester
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analysis, especially where only innovative solutions will resolve this resource conflict.

As additional alternatives, we suggest that the Forest Service specifically consider re-activating past operations in Rodman Bay, Sitkoh Lake and Bays and those parts of Neva-Upper Kruzof which have already been roaded. See *in/ra* Comments on Chapter 2.

Chapter 1, pages 1-3: Though adequate NEPA analysis need not precede logging activity in certain non-deferred VCU's approved under the 1981-86 EIS, we believe the Forest Service misinterprets the Settlement Agreement by reading it to waive or preclude any NEPA analysis of those areas. It does not. Such activities must be addressed as either connected or cumulative actions with other timber-related activities in those areas and nearby. See, e.g., *Thamas v. Peterson*, 753 F.2d 754 (9th Cir. 1985). Moreover, the Settlement Agreement does not even address, let alone waive, NEPA analysis for the interim 1986-90 operating areas. Again, we urge the Forest Service to expand its analysis to consider the cumulative effects from such activities.

Chapter 1, page 3, "Purpose": This purpose is wrong, in our view. The purpose should be to further address issues which have been raised in the litigation, appeals and public comments on the 1981-86 and 1986-90 EISs and to consider whether and how to meet APC's timber requirements for the remaining years of the operating period.

Chapter 1, page 4, "Need": Again, we have stated that this narrow formulation of the need for the DSEIS fails to recognize important unresolved controversies which plague the 1986-90 EIS. We question the wisdom of going no further in analysis than the courts have already explicitly ordered. If litigants in *Harlan v. Barton* succeed, will there be a supplement to the DSEIS? What about the unaddressed concerns raised in the 1986-90 administrative appeal now pending before the Chief of the Forest Service?

Chapter 1, page 4, "Public Involvement": Though the Forest Service has no legal duty to solicit public comments (scoping) prior to publishing a supplement to an EIS, such a step it certainly would have helped here. In fact, given due to the errors apparent in this document, treating these comments as scoping and re-formulating the DSEIS now seems the best possible course. We disagree that the scope of the supplement was set out by the court in *Tenakee Springs v. Caurright*. Those issues highlighted by the court form a floor but not a ceiling. The Forest Service could and should expand the scope of the supplement, as explained in these comments.

Chapter 1, page 4, "... Permits and Licenses": All permits and licenses should be explicitly described and analyzed in this document.

Chapter 2, page 1, "Alternatives": Rather than describing a reasonable range of new alternatives, this chapter merely restates the history of the Forest Service's prior efforts in the 1981-86 and 1986-90 EISs. The chapter should be re-titled,

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since it gives the reader a mistaken impression that new alternatives will be assessed.

Chapter 2, page 2: The passage describing the five steps outlined in chapter 2 is confusing. We doubt the uninitiated reader would be able to understand what this section means without substantially more information.

Chapter 2, page 2, "Areas Considered": While the NFMA did validate the legal legitimacy of the fifty-year contracts, it does not follow that Congress thereby precluded consideration of a bona fide "no action" alternative. This DSEIS perpetuates the errors committed in previously planning documents which fail to look at the merits of declining to continue APC's current operations (as set forth in the contract) and recommending to Congress that the fifty-year contracts be terminated. Since Congress, in its last session, seriously considered such a solution to the continuing management crisis in the northern Tongass, such an alternative is clearly reasonable. Indeed, the next Congress would benefit from a serious Forest Service study of an alternative that eliminates the APC contract altogether, since this issue will almost certainly continue to be discussed next year in Congress.

Chapter 2, pages 2-10, "Areas Eliminated ...": (1981-1986): For a number of currently roaded areas the Forest Service provides wholly inadequate and inconsistent reasons for eliminating them from further consideration. These areas not only deserve full, detailed consideration in the DSEIS such analysis is required under NEPA. Many of them have already been roaded and partially logged, some have previously-utilized log dump sites, and likely do not provide high quality wildlife habitat, recreation opportunities, or other non-timber values. Moreover, these areas must be logged again at some point in the timber rotation if the cutting cycle is to be achieved. Logging these areas first as second entry areas would be immeasurably preferable to entering additional roadless valleys and bays like Kadashan, Pt. Adolphus, East Kuui Island, Trap Bay, and others that may be proposed for logging in Phase II. Specific comments on the elimination of these areas is provided below:

Kresia/ Island: The DSEIS lists none of the "logistical constraints" it claims eliminates this areas from detailed evaluation. By failing to provide any explanation, the document does not meet NEPA's requirements for full and detailed evaluation of alternatives.

Fish Bay: The only reason given for rejection of this area is the alleged logistical difficulty in obtaining log dump permits. However, the end of the operating period on December 31, 1990 is over two years away, hardly insurmountable deadline for obtaining permits to reconstruct log dump facilities. Individual log dump permits certainly take much less time to process than a full-scale EIS, which this study purports to be. Thus, the Forest Service could easily include consideration of this area as part of this DSEIS (in Phase II), in cooperation with other federal and state agencies. Elimination of this alternative is improper under these circumstances.

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Applian Cove and Saak Bay: Here again, the DSEIS rejects another potentially valuable timber producing area based on unexplained "logistical constraints." We would request that this area be included as an alternative in the Phase II DSEIS.

Chapter 2, page 13: The discussion of both rejected alternatives here should be changed to take in to account Congress' action in 1988. HR 1516 expresses an explicit Congressional concern with Tongass timber harvest disproportionate to its occurrence by volume class and called for elimination of this practice. HR 1516 also evidences clear Congressional intent to change Tongass management. We request that the Forest Service consider alternatives which avoid further high-grading of the timber and which do not reject areas as "uneconomic" with no further explanation.

Chapter 2, page 15: We continue to strongly oppose further logging in VCU's 416, 417 and 418. Alternatives such as additional logging on North Kuui should be considered in lieu of these areas.

Chapter 2, pages 15-17: This section, rejecting any alternatives utilizing alternative timber sources or timber volumes other than current contract terms, represents a major flaw in the DSEIS. Even less justification is offered for this position now than in the previous EISs. No discussion of alternative timber supplies is included. The DSEIS presents nothing more in regard to contract amendment as an alternative than the conclusory statement that, "conditions to terminate the contract have not been satisfied."

Chapter 2, page 18: As noted above, another serious flaw in the DSEIS is the failure to consider expansion of operations to areas outside APC's current contract boundaries. The stated rationale does not stand up to logical scrutiny. There is no evidence presented to show why part of APC's timber could not come from outside the contract boundaries, other than the unsupported conclusion that such action would "impact" or "severely impact" independent sales. APC can already bid competitively on independent sales, so direct competition will not be the cause of such impacts. We are not suggesting that APC take timber actually designated to be sold in the SBA program. Does the Forest Service imply that there is not enough timber actually present in the Stikine area to serve both needs? We believe that the Stikine area does contain sufficient timber resources to allow APC to set up (or move) at least two of its operations, while still providing a sufficient timber supply for independent operators. In any event, the DSEIS should provide information on this issue rather than summarily eliminating it from consideration.

Chapter 2, pages 19-23: This section provides a general reiteration of the alternatives considered over the last decade for administration of APC's contract. Taken together, however, this still provides only a very narrow range of "alternatives." For 1981-86, three alternatives provided 525 mmmbf (combining any one of three Chatham alternatives with a Stikine alternative), APC's alternative provided 534 mmmbf and the preferred alternative provided a generous 641 mmmbf. For 1986-90, the alternatives ranged between 500 and 560 mmmbf except for the "no action" alternative which still made available 253 mmmbf of carryover timber (as did

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every alternative). Thus, in one full decade of planning and studies, the Forest Service has yet to critically examine any alternative providing APC with less than 500 mm³ of new timber from the contract area. This analysis fails to fulfill NEPA's requirement that a broad range of alternatives be fully considered. See, e.g., *California v. Block*, 690 F.2d 733 (9th Cir. 1982).

Chapter 2, page 24, "Standards, Guidelines, and Mitigation Measures": This section should discuss the findings contained in Alaska Department of Fish and Game Technical Report 86-1. Monitoring is underfunded, mitigation has yet to prove effective, and the standards and guidelines are largely unenforced. NEPA requires a discussion of the efficacy and likelihood of implementation of mitigation reasons. See *Methow Valley v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987). The DSEIS should discuss these measures in both Phase I and Phase II, in appropriate levels of detail.

Chapter 2, page 24, "Log Transfer Facilities": Though elsewhere the DSEIS implies that log dump permits take more than two years to secure, no discussion of the subject can be found here. In fact, the cited language tends to indicate increased cooperation (and presumably efficiency) between the issuing agencies. We have searched the DSEIS in vain for an adequate explanation of the lead time problem for log dumps. Is the time the same whether a new site is being proposed or an old site is being "reactivated"?

Chapter 2, page 23, "Comparison of Alternatives": This section does not compare alternatives as NEPA requires. Instead, it selects through application of unstated criteria a smaller number of areas than are currently available in which to concentrate logging by APC. In effect, it improperly eliminates alternatives from detailed consideration. As stated throughout these comments, we question the wisdom and legal sufficiency of this winnowing process. More, not less, flexibility is needed in administration of APC's contract area.

A number of critical, but unstated, assumptions form the basis for the selections contained in this section. There is nothing in the DSEIS which explains these assumptions or which justifies their propriety. However, we deduce from our review that an internal Forest Service decision was made that assumed at least the following:

- 1) Analysis Areas must provide the most economical timber volumes available.
- 2) Analysis Areas must each contain large enough amounts of timber such that only a few need to be examined in Phase II.
- 3) Analysis areas must either require new roads and log dumps or currently possess active roads and log dumps. Previously logged areas are undesirable.
- 4) Only considerations of timber extraction efficacy can qualify or disqualify an area from Phase II analysis. Environmental and subsistence effects are not be considered.

- 5) Areas considered must be adjacent to active logging camps. Moves will not be required.

Making these decisions constitutes one of the most important functions of this DSEIS, but absolutely no discussion of the criteria is offered. We take great exception to these five central assumptions, but the DSEIS provides no forum for this debate. We request that the Forest Service explained fully its criteria for selecting and eliminating areas in this DSEIS, and comment on whether the above five assumptions were utilized by the Forest Service in reaching its decision.

For example, SEACC favors further logging in Rodman Bay as an alternative to further logging around Hoonah, Trap Bay, or on East Kuiu. But the DSEIS summarily assigns Rodman Bay a "low priority." More than half of the commercial forest timber in this area remains to be harvested, roads are already in place, the area meets Regional Guide standards for a second and third entry, but for unexplained reasons Rodman Bay will not be studied. Unfortunately, this example is hardly unique.

Specific comments on each Analysis Area follow:

Mud Bay - Nekka: We believe the Hoonah area has borne far more than its share of APC's (and other entities') logging operations. The *Hanton v. Barion* case, 188-0025 Civ., filed in the District Court in Alaska, this year illustrates better than we can here the failure of the Forest Service's protection of subsistence rights and opportunities. We hereby incorporate by reference the pleadings and evidence in that case, which the Forest Service already has copies of, as part of the DSEIS record. Increasing Hoonah Area logging by opening up the Pt. Adolphus area would only exacerbate a subsistence/logging conflict already of substantial magnitude. Though the Nekka River area could perhaps support second-entry logging, we look with great disfavor at any proposal to advance current road networks in the few remaining roadless areas near Hoonah.

Freshwater - Whiststone: Similarly, for the reasons stated above, we oppose additional logging in the Whiststone area, including Seal Creek and the Youkeen Peninsula. However, we could support additional logging on existing road systems in Freshwater Bay if Hoonah subsistence uses will be adequately protected.

Ushtk - Hoonah Sound: We oppose logging in any of this area, all of which would be protected under HR 1516.

Corner Bay: We oppose any logging in Kadashan and Trap Bay (as well as any other area which would be protected by HR 1516). We also express concern for protection of the shoreline between South Passage Point and Sitkoh Bay for Angoon subsistence uses. Some protection should be afforded the Tingit village site in Basket Bay (which was impacted in the 1960s by APC logging). Nevertheless, we agree that certain roaded VCU's within this analysis area could provide a substantial volume of second-entry timber, particularly in the area around Sitkoh Lake and False Island.

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Corner Bay: We question why only 1,200 acres of timber is available for second entry in VCU's 240, 241, 244 and 245 when only 7,000 of 21,000 acres of commercial forest timber have been harvested to date. What about the other 13,000 acres?

Kuiu: We assume that a "no development" alternative will be considered for VCU's 416, 417, and 418, but the confusing discussion on page 34 raises some doubt. We encourage deferral of these areas and a concentration of logging in the areas on North Kuiu that have already been entered.

Chapter 3, page 1: We believe the Forest Service errs in depending so heavily on the 1981-86 and 1986-90 EISs for descriptions of the affected environment. Both EISs suffer major shortcomings, as demonstrated by the lawsuits and administrative appeals challenging them. We refer again to the arguments in our pending appeal of the 1986-90 Operating Plan, as well as in the *City of Tenakee Springs* litigation. The DSEIS should address these issues. Instead, it provides little or no new information, ignoring even major concerns raised in previous comments.

Chapter 3, page 3, "Sails": This section should discuss the landslide potential in areas of less than 70% slope, which can be logged. Moreover, some quantification of past experience and future expectations is essential, but not provided here. This issue is a major fisheries and water quality concern.

Chapter 3, pages 8-9: In discussing alternative sources of timber utilized by APC, the DSEIS should explain that APC used other sources for 71% of its timber supply between 1981-86 and that the Forest Service waived the "70% requirement." More quantification of alternative supplies should be provided. APC clearly has available to it a vast supply of timber from sources other than its contract areas. See, e.g., Affidavits of Joseph R. Merikens, (attached as exhibits in *Hanlon v. Barton*). As the plaintiffs in *Hanlon v. Barton* have shown, APC can purchase timber to make up for any shortfall in its contract volumes. This DSEIS should fully explore such an option, since we favor this avenue as one way to reduce logging demands on critically important pristine areas now threatened by APC's operations.

Chapter 3, pages 10-12: Recognizing that APC currently rides the crest of an economic wave, reaping windfall profits from timber appraised at an all time market low, how can the DSEIS also reject certain areas for logging because they are "uneconomic"? What analysis supports this discussion? If APC cannot log profitably in every acre of commercial forest land, then basic Forest Service assumptions about the sustained yield potential of the Tongass must be wrong. This is especially true where, as here, APC pays base rates for timber it is now selling in a boom market. The DSEIS should discuss the issue of how "economic" timber is determined in detail.

Chapter 3, page 13: The discussion of APC's importance in the Sitka economy juxtaposed alongside the descriptions of commercial fishing (page 16) and subsistence gathering (pages 24-39) illustrates the failure of the DSEIS to treat important parts of the regional economy in an evenhanded manner.

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Rodman Bay: The reasons expressed for assigning Rodman Bay a low priority do not support the decision. As stated above, log dump permits can be secured. Roads are already in place. Substantial volumes of timber are still present. It is irrelevant that this area was not considered in the 1986-90 plan. Similarly, this DSEIS can be used to amend the TLMP schedule. The decision not to look closely at Rodman Bay is simply unsupported and insupportable. We urge the Forest Service to consider it fully in Phase II.

Neva - Upper Krusof: As with Rodman Bay, we favor a thorough examination of this area for potential timber supply in VCU's already logged and roaded.

Kuiu: The DSEIS fails to mention that VCU's 416, 417 and 418 are part of the area proposed for protection in HR 1316 as "East Kuiu." We categorically oppose logging in these VCU's. We would propose, as an alternative, additional logging within roaded areas on North Kuiu (MA SO4). We also question the inconsistency inherent in the discussions of Kuiu and South Kuiu. Though the DSEIS rejects South Kuiu in part because it requires a new logging camp, the Forest Service harbors no such objections to VCU's 416, 417, and 418 though they too require a new logging camp in No Name Bay. Why is one new camp a constraint when another is not?

Chapter 2, page 31, "Summary ...": The DSEIS should include a study in at least this depth for each of the Analysis Areas. The Table on page 31 makes no sense without explanatory text. The source of these figures and their significance should be explained.

Chapter 2, page 32: The timber supply goals given make no sense. Why is APC given \$50.3 mmmbf when even its contract only guarantees \$25 mmmbf per operating period? Moreover, the DSEIS offers no explanation of or justification for the timber yield values assigned to each area, the choice of these areas over other areas, the allocation of timber between them, and other absolutely crucial considerations which would facilitate an informed choice between alternative courses of action. We are troubled that the Forest Service would present these decisions without any elaboration.

Specific comments on the treatment of each Analysis Area follow:

Mud Bay - Neke: As noted earlier, it appears that only timber considerations have entered into the decision to concentrate effort in this area. Had subsistence protection been a dominant consideration, we doubt the Forest Service would be evaluating any areas around Hoonah for increased timber harvest. As a multiple-use agency, the Forest Service must evaluate and manage all resource values, not simply timber.

Freshwater - Whitesider: See comments above.

Hoonah - Ushk: We oppose any logging in this area.

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Chapter 3, page 15: Table 3-3 seriously understates the impacts of roadbuilding and logging to date as a result of construction of 40 additional miles of road since December 31, 1986. For example, the state has had to close Northeast Chichagof Island to brown bear hunting and has limited deer harvest, both measures required due to the impacts from increased road access. The DSEIS utterly fails to discuss this profound impact, either in isolation or in conjunction with the vast networks of roads already built or still proposed for the APC contract area.

Chapter 3, pages 16-22: No new information on wildlife or other non-timber resources is provided despite the lack of rudimentary baseline census data, accurate wildlife habitat inventories, information on mortality rates, and similar gaps in the record. These issues remain unresolved from the *Tenakee Springs v. Courtright* litigation and the 1986-90 appeals. This entire discussion adds nothing to the incomplete record on which the 1981-86 and 1986-90 decisions have been founded.

Chapter 3, pages 22-23: Areas of high historic or cultural values should be identified and mapped. It has not been possible in the past to correlate APC's logging plans with Tlingit Village sites and other such places of inestimable cultural values. The tragic results, Basket Bay, for example, violate federal laws and the Forest Services' responsibility as trustee of the public lands. We and other parties have continually pointed out that surveys of historic and cultural sites on Tongass lands prior to logging have been inadequate. These surveys must be accomplished and their results displayed in the DSEIS.

Chapter 3, page 24: This section also fails to add anything of substance to the existing inadequate record. Simply describing by number the VCUs used by area residents does not begin the task of quantifying intensity and value of use areas. Not all VCUs are equal in subsistence resources. The DSEIS comes no closer in Phase I to meeting ANILCA section 810 requirements than did the previous studies for the 1986-90 operating period. We (and the *Hamlin v. Barion* appellants) have already described the shortcomings of the APC contract area subsistence analysis in the *Tenakee Springs v. Courtright* litigation and the 1986-90 appeals. The DSEIS fails to correct these deficiencies. There is no basis here for weighing the impact of various alternatives or even assessing the existing situation.

Chapter 3, pages 34-62: This section provides some of the information which should have been provided for all of the Analysis Areas so that readers of the DSEIS could compare the relative capability of each area to meet APC's timber needs. The tables showing acres of operable CFL by VCU are helpful but should list potential timber volumes as well. Tables like these for all the Analysis Areas could have provided some basis for choosing which areas to analyze further. The tables showing Acres of Existing and Scheduled Timber Harvest, Harvest Status by VCU, and Acres of Existing and Scheduled Harvest by VCU are redundant, however, and not always internally consistent. For example, Table 3-14 lists 150 acres total harvest for VCU 201, but Table 3-15 lists 664 acres of existing harvest for VCU 201. Moreover, the text accompanying the myriad of tables does little to explain how much of each area has been logged, is being logged, and could be

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scheduled for logging under the alternatives being considered in phase II. (Table 3-25 is the exception, but information should be displayed this way for all Analysis Areas.) In fact, nowhere are the Phase II alternatives described in anything but the most vague terms.

What little wildlife information is included in this section is nothing more than a reshuffle of the already discredited approach taken in the 1981-86 and 1986-90 EISs. Although the DSEIS claims that no new information "has surfaced" since the 1986-90 EIS, an extensive and exhaustively documented administrative appeal has been filed by the Wildlife Society on the subject of the inadequacy of the wildlife analysis in that EIS. None of the information presented in that appeal has been addressed here. The DSEIS provides no new information on wildlife populations, harvest levels or sensitivity to disturbance. It completely ignores brown bear populations or habitat needs. It ignores fish populations or habitat needs. Without such critical information, it is impossible to compare the Analysis Areas with respect to these resources.

Chapter 3, pages 54-55: We oppose completion of the Kadashan road. As we have pointed out on numerous occasions, there are viable alternatives for connecting Corner Bay with False Island, if such a connection ever becomes necessary. Alternatively, the Corner Bay and False Island facilities can easily be operated independently. The only rationale for completing the Kadashan road is either to log Kadashan or provide road access between Corner Bay and False Island for Forest Service personnel. We oppose logging in Kadashan. Administrative access can be accomplished by float plane or boat -- two cheaper alternatives that do not harm the areas in question.

Chapter 3, page 61: The misleading nature of the deer habitat capability numbers cited in this section is nowhere more apparent than here, where North and East Kuiu Islands are credited with 27,658 deer. That would be an exceptionally healthy number of deer for an island currently off limits to hunting due to its depressed deer populations. Actual census information should be obtained and employed to give an accurate portrayal of the deer management situation on Kuiu.

Chapter 4, page 1: Section 1, "Need for Phase II Analysis," presumes that no further NEPA analysis is required for "non-deferred" 1986-90 logging. We disagree. These areas must be analyzed in the DSEIS if for no other reason than that they are cumulative and connected actions with logging preceding and following this operating period. We also point out that we nowhere reached any agreement with the Forest Service regarding 1986-90 logging. Our administrative appeal of that operating plan, which points out numerous deficiencies in the regional 1986-90 EIS, is still pending before the Chief of the Forest Service and has not yet been decided, despite the nearly two years that have passed since the appeal was filed. Nothing in the DSEIS undertakes the analysis which we believe is legally required.

Chapter 4, pages 2-3: The discussion of timber supply still does not explain why more than the contractual minimum of 525 mmmbf is to be provided for the entire 1986-90 period. The DSEIS presumes these numbers are beyond debate, yet their validity remains a key question under which the entire timber controversy is

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document. This issue should be addressed in the monitoring and mitigation section as well.

Finally, we note that this section is rife with errors, omissions, and ambiguities. For example, the text that immediately follows Table 4-12 cites changes in Unit 14 in VCU 209 -- changes not listed in Table 4-12. The text also lists reasons for changes in Unit 147 in VCU 215 -- changes also not listed in Table 4-12. Table 4-9 does not describe changes resulting from redesigning of various "carryover" units (e.g. in VCUs 214, 209-209, 237-238, 416-419) in the 1986-90 EIS, but they are apparent in the acreage listed in Table 4-11. Essentially, this section leads the reviewer to the inescapable conclusion that the 1981-86 and 1986-90 EISs bear far too little relation to actual sale layout and unit location. Further information about unit changes must be provided.

Chapter 4, pages 16-37: We have argued all along that logging by APC will cause a significant restriction of rural subsistence opportunities. Much of the information provided here only reworks data collected previously and sheds little light on the central issue presented: how will past, present and future logging impact each of the subsistence dependent communities in or near the APC contract area? To determine this, the Forest Service needs site-specific data about the importance of each area to each community. When specific logging plans are formulated they can be assessed against this information base to determine whether a site-specific or cumulative restriction may occur. If such a restriction appears possible, ANILCA § 810 procedures must be followed.

The new information presented here reinforces our conclusion that significant restrictions will occur in more of the contract communities now and in the near future. See Chapter 4, pages 37, para 14. Hoonah, Tenakee Springs, Point Baker/Port Protection, Angoon, Kake and Sitka appear to be the most profoundly impacted. Information for Game Units 35, 36 and 20 shows this is a logging-related effect. In Game units 35 and 36 hunter effort has doubled but deer harvests have increased only marginally (Table 4-34). In Game Unit 20 there is still virtually no hunting -- a condition only exacerbated by the massive logging development going on there.

The deer habitat model shows an 11.4% decrease in parts of Unit 35, a 27% decrease in another part, and a 3.8% decrease in Unit 36. These restrictions alone would be significant enough to trigger ANILCA § 810. But this model also fails to account for road access, illegal kills, predation, competition, and a myriad of other highly relevant factors. It also fails to account for past (pre-1981) and reasonably foreseeable future (post-1990) logging activities, thus rendering it almost meaningless. Once again, it appears the Forest Service has constructed a scientific model with unjustifiably favorable assumptions to avoid addressing the serious situation with respect to subsistence resources in many areas of the forest. This approach does not solve the problems which spawned *Tenakee II*, *Hanlon v. Barton*, or the appeals of the 1986-90 EIS.

Because the DSEIS defers a decision on whether to hold ANILCA § 810 hearings until the phase II alternatives are proposed, time remains to correct the

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framed. We continue to believe that the Forest Service must analyze these assumptions and seriously consider alternatives that require some change in the existing contract terms. The Forest Service cannot bind itself to these goals (i.e. 229 9 mmfb "minimum timber supply needs") outside of the NEPA process. The numbers presented, however, were developed without the review required by the NEPA process and are then treated as hard constraints on Forest Service action.

Chapter 4, pages 4-7: This discussion of Native logging and its impact on the analysis areas is woefully inadequate. Almost no new information is included, and what little is provided (Tables 4-6 and 4-7) does nothing to explain whether certain areas may or may not be suitable for the Phase II analysis because of adjacent logging on private lands. Though the DSEIS decides to log heavily around Hoonah to achieve the preconceived volume target of 229 mmfb, Hoonah has the most adjacent private land timber harvest of any contract area community except Kake. The total amount of logging has major subsistence management implications for public lands around both these communities. We believe additional logging around Hoonah cannot be justified given the potential logging of nearly 50,000 acres (Selaska and Iluna Totem acreage combined) on private lands. This is also true for Kake, Angoon and Tenakee Springs -- all of which have active Native logging within their subsistence use areas.

We also question the source of the table on deer habitat (Table 4-7). None of the underlying models or assumptions that were used to create this table have been given, so we cannot review its validity. We must presume that model employed here is the same one used in the 1986-90 EIS. If so, it is invalid, as demonstrated in the 1986-90 administrative appeals. A new, valid deer habitat model must be subjected to public and scientific scrutiny. Not enough information has been provided here to facilitate any meaningful review.

Chapter 4, pages 8-15: The method by which the APC contract has been administered causes the kind of management morass that this section documents. IIR 1516, Title II, addresses this subject at some length. The House Committee Report should be included as an Appendix to the DSEIS and its findings addressed in the text. The failure to actually cruise and appraise units "on the ground" in APC's contract area allows extensive changes in actual cutting areas after the EIS is finalized. Thus, although Table 4-12 presents welcome information, it poses more questions on a site-specific basis than it answers. What environmental impact is realized by the net change of +39 acres in Unit 15 in VCU 209; the +29 acres in Unit 2 in VCU 218, or the +32 acres in Unit 25 in VCU 4007? On what basis were the decisions made to change these unit boundaries? Are units actually moved? All the information provided in tabular form is essentially meaningless without a detailed map documenting the changes and site-specific textual information assessing the impacts of the changes. This information should then be compiled to give a cumulative view of the situation. What has been provided here is a start, but an incomplete and insufficient start at best.

Moreover, some assurance should be provided that this unlawful practice of modifying plans after approval will not continue in the wake of the final Phase II

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Michael A. Barton, Regional Forester
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October 24, 1988

problem and address the question of subsistence restrictions. We urge the Forest Service to recognize the significant restriction on subsistence in APC's contract area in the second phase of the DSEIS.

Chapter 4, pages 38-45: This discussion is confusing and, although the data presented has some historical value in describing the contract area, it has nothing whatsoever to do with a "no action alternative". The court in *City of Tenakee Springs v. Cowtrigh* required consideration of site-specific no-action alternatives for each sub-area of the APC contract area. We expect this to be part of a Phase II analysis. We also think the Forest Service should include an alternative which terminates the APC contract and replaces the lost volume with short-term sales, monetary damages, or alternative timber sources. Neither of these alternatives is addressed in the Phase I DSEIS.

Chapter 4, pages 46-100: This section appears to rework old data from the inadequate 1986-90 EIS. It provides information on subsistence use of certain areas and on deer habitat capability; but this data is provided without explanation of its underlying assumptions or practical implications. The new computer generated graphs would be valuable if they showed actual harvest proposed under Phase II alternatives, as well as prior planned and completed harvest, instead of showing 1986-90 units in isolation. These projections could be used extensively in Phase II. As with other information provided about logging impacts and potential timber yields in the selected Analysis Areas, all the Analysis Areas should be assessed in this level of detail (at a minimum). More information must be provided to justify the selection of these particular Analysis Areas and the assignment of particular timber outputs to these chosen areas. This last section once more emphasizes the lack of any basis in the DSEIS for selecting Analysis Areas 2, 3, 6 and 12 to provide shares of an arbitrary timber harvest goal.

Thank you for allowing us the opportunity to comment.

Sincerely,

STEVEN E. KALLICK

Steven E. Kallick
Staff Attorney
Southeast Alaska Conservation Council

Lauri J. Adams

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Sierra Club Legal Defense Fund, Inc.

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OCT 24 1988

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Michael A. Barton
Regional Forester
U.S. Forest Service
Federal Office Building
P.O. Box 21628
Juneau, Alaska 99802-1628

Dear Mr. Barton:

We have received Phase I for the Alaska Pulp Corporation (APC) Long-Term Timber Sale Contract, Draft Supplement to the Environmental Impact Statements (DSEIS) for the 1981-86 and 1986-90 Operating Periods on the Tongass National Forest. This DSEIS is being prepared to address issues raised by departures from the original APC 1981-86 EIS. Because this in turn affects the APC 1986-90 EIS, both EISs are being supplemented.

The Phase I DSEIS provides information and analysis of issues. At a later date a Phase II DSEIS will present site-specific environmental impacts of proposed roads and harvest units. Since this document by itself is not a complete EIS and a substantial portion of the analysis will be included in Phase II, we will defer our official review under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA) until the Phase II DSEIS is filed. We will treat the Phase I and Phase II documents as one DSEIS, since the final EIS is expected to combine both phases in one document.

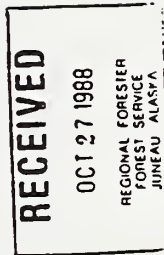
The contact for EPA's review is Wayne Elson at (206) 442-1463.

Sincerely,


Ronald A. Lee, Chief
Environmental Evaluation Branch

cc: ADEC
USEWS
AUF & G
NMTS

* No comments on Phase I DEIS



THE WILDLIFE SOCIETY ALASKA CHAPTER

October 20, 1988

Mr. Michael Barton
Regional Forester
U.S.D.A. Forest Service, Alaska Region
P.O. Box 21628
Juneau, Alaska 99802-1628

Dear Mr. Barton,

Thank you for the opportunity to comment on the Draft Supplement to the Environmental Impact Statement for the 1981-86 and 1986-90 operating periods for the Alaska Pulp Corporation Long-term Timber Sale Contract (henceforth "the DSEIS").

As you are aware, the Alaska Chapter of the Wildlife Society has had an administrative appeal of the 1986-90 FEIS pending for nearly 2 years. In that appeal, the Wildlife Society requested that a supplemental or revised draft EIS be prepared which addressed the point-specific concerns raised in our appeal. In your October 11, 1988 letter to the Chief, you stated that this DSEIS did indeed bear directly on the issues raised in the appeals, and requested that the DSEIS be incorporated into the record.

Thus, we were surprised to find no mention of our appeal, or the issues we raised, in the discussion of Purpose and Need for the DSEIS (pages 1-6). Rather, the discussion indicates the DSEIS was required by a court-issued Memorandum and Order stemming from a court case brought against the Forest Service by the City of Tenakee Springs and environmental groups. The court order required a supplement to the 1981-86 EIS. The Forest Service's subsequently expanded the scope of the DSEIS to cover the 1986-90 period.

In our view, the DSEIS does not address the issues raised in our appeal. There are important, and obvious differences between the Wildlife Society and its concerns (on the 1986-90 FEIS), and the City of Tenakee Springs, environmental groups, and their concerns (on the 1981-86 FEIS). Whether you intended to respond to Wildlife Society issues should be clarified in the Purpose and Need Section (Chapter 1).

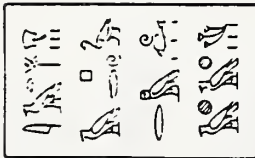
On Page 4 of the DSEIS, you provide a list of 7 issues that will be addressed in Phase 1 and Phase 2 of the DSEIS. These stem from the court-issued Memorandum and Order. They either do not address, or address inadequately, specific issues raised in our appeal (detailed later). This list needs to be expanded to include Wildlife Society issues.

Separating the DSEIS into 2 "phases" is highly unorthodox, and the reasons for so

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Phase 1, presented in this document, provides information and analysis regarding the issues with which the supplement is concerned. This draft supplement discloses the environmental impacts associated with these issues. Phase II will further supplement discussion of site-

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specific environmental impacts for areas that phases 1 indicates should be entered for timber harvest or roading" (page 2).

This still does not explain the purpose behind supplementing the EIS in 2 phases, or what the distinction between the 2 phases is. Will not Phase 2 also provide "information and analysis regarding the issues with which the supplement is concerned?" If Phase 2 provides "further" discussion of site specific impacts, we assume Phase 1 provides at least "some" discussion of site specific impacts. Why not provide all the analysis and discussion in one package? Providing one document in isolation of the other makes it difficult for reviewers to judge the adequacy of the first document alone.

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Your Notice to Reviewers at the conclusion of the abstract obliges us to

"...alert the agency to our positions and contentions in a meaningful way." And warns, "...objections that could have been raised at the draft stage may be waived if they are not raised until after completion of the Final Environmental Impact Statement. Thus, to address all concerns, comments on the DEIS should be timely, thorough, and specific."

An obvious question is: If a particular issue is not addressed in the Phase 1 document, are we expected to bring that forward now, or wait with the expectation it will be addressed in phase 2? With no clearer indication of the purpose and scope of each phase, it's difficult for us provide a comprehensive review. Additional clarification would be helpful.

Despite the ambiguity posed by the format, we will strive to comply with the above Notice to Reviewers. Thus, we've identified a number of major issues which still need to be addressed by some phase of a Supplemental Environmental Impact Statement. Unaddressed issues are listed briefly below; we refer you to the appeal record for further detail and documentation.

1. The DSEIS failed to address wildlife habitat retention in a manner consistent with the directives of TLMP.

The 1986-90 FEIS, and the DSEIS, fail to display to condition, location, and volume class of retention acreages as directed by Tongass Land Management Plan and its amendments. Wildlife Habitat Retention, as defined by TLMP, was suitable forestland removed from the timber for the life of the sale (100 years). These retention targets remain in force until the forest plan is revised. It is not the same as "areas to be managed to provide old-growth conditions through the year 1990" as shown in the DSEIS. The ID Team should refer to the 1989-94 DEIS for the KPC Sale Area as a guide for properly defining and displaying old-growth retention.

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2. The DSEIS fails to address the issue of overharvest of high-volume forest.

The selective over-harvest of high-volume forestland, or "high-grading" was raised as an issue soon after the Tongass Land Management Plan (TLMP) was finalized, and continues to be a high-priority concern of biologists today. Neither the FEIS nor the DSEIS discusses previous harvest patterns in the long-term and cumulative effects analysis. Left unaddressed are the substantive discrepancies in the two timber inventories conducted on the study area, and apparent errors in the multi-entry layout plan for the 1986-90 study area. High-volume stands of over 50

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roadbuilding and habitat change, as it has done for deer (see draft brown bear habitat developed for TLMP revision). Showing the number of acres of riparian habitat logged (e.g., Table 4-47) provides no indication of how brown bear numbers will change. The Wildlife Society's position statement on brown bears recommends: "Discourage roads and motorized vehicle access in important brown bear habitat. When construction is necessary, access and use must be controlled rigidly." The conflict between roading and brown bears is particularly acute in analysis area 3, where the brown bear kill has increased dramatically since 1985. Because the kill far exceeds sustainable harvest levels, the Alaska Department of Fish and Game recently issued an emergency order closing that area to brown bear hunting. As roading and logging proceed in other portions of the sale area, similar conflicts are inevitable. The SDEIS needs to quantify the likelihood of roads and logging impacting brown bear populations, and describe what measures may be used to minimize losses.

6. The DSEIS does not present a long-term cumulative effects analysis.

This is perhaps the single greatest failing of this document. Whereas the 1986-90 FEIS displayed how much of various habitats would be logged through the year 2080, and made an attempt to show changes in deer numbers and harvest over that same time period, the DSEIS restricts its analysis to the 1981-90 time period. It's not clear why new models and analyses were presented in the SDEIS, but the time period analyzed was scaled back. The public needs to know the effects of logging on deer numbers, harvest levels, subsistence opportunities, roading, and the high-volume component of the forest over at least a 100 year time period. It is important that current activities be placed in the context of past and future logging plans. For example, the LPK 1989-94 SDEIS shows under each alternative the extent, location and age class of prior timber harvest, the extent and location of long-term wildlife habitat retention, all existing and proposed roads, and a life of sale schedule by volume class. It displays how deer habitat carrying capacity has changed, and will continue to change from 1954 through 2054, and when and under what conditions hunter demand will or will not be met. Placing the proposed activities in this context is essential for a fair public evaluation of the plan.

Page Specific Comments:

In addition to the issues and concerns described above, we have a number of specific comments on the document. We found a number of tables contained minor errors, or were unclear. Further discussion/clarification on portions of text is also needed. Our comments are listed sequentially by Chapter, by page number.

CHAPTER 2

(page 9) The table showing the extent of roading and logging on North Kuia (analysis area 12) is missing.

(Page 10) VCU 404 is a LUD 1.

(Page 27) VCUs 285 and 286 are listed as being in both Analysis Areas 1 and 5.

(page 28) VCU 325 is listed as being in both analysis areas 9 and 10.

(page 31, Table 2-1). The term "practicable timber" is not defined in either the text

MBF/acre have been overharvested in the past and will continue to be overharvested in this 5-year plan. By the end of the rotation, these high-volume stands will be virtually eliminated from the study area. The result will be a significant reduction in ecological diversity, as a permanent reduction in carrying capacity for wildlife species dependent on this forest type. Long term harvest trends (past and present), by volume class, need be displayed. Again, the 1989-94 LPK DEIS might serve as a useful model for the APC Final SEIS.

3. The FEIS and DSEIS use 3 different definitions, all of which are flawed, and none of which are consistent with the model used to calculate and display environmental impacts.

The deer winter range displayed in tables for each analysis area rely on the original TLMP definition of deer winter range. That definition, which includes noncommercial forest and non-forest landtypes (muskies, rock etc.) is widely acknowledged as defective and should be dropped. In the FEIS two alternate definitions of important deer winter range were used. Although they represented improvements over the TLMP definition, they also are inadequate (especially the one used on the Sitikine). The pink areas on the DSEIS maps which show areas "managed to provide old-growth habitat conditions through 1990" are, in fact, the areas identified as deer winter range in the specialist's reports. A more current, and biologically meaningful definition of deer winter range includes volume class and a criteria (higher volume stands being more valuable). This criteria figured prominently in the model used to evaluate the effects of the various alternatives on deer (e.g., Table 4-48). The Final SEIS should display amount of deer winter range as defined in the 1986-90 FEIS (by the Chatham Area). Alternatively, the Final SEIS should display the amount and location of important deer winter range as defined by the deer habitat model (DSEIS Appendix H).

4. The means used to calculate deer numbers and hunter harvest potential in the DSEIS are deficient.

Although significantly improved over earlier efforts, several important problems remain. First, it is inappropriate to imply that the model developed by Suring et al. (Appendix H) was the model used in this analysis. Selected components of Suring's model were used. The Final SEIS should include a clear description of the model used, and the values assigned to specific habitats. The DSEIS model borrows values from Suring's model for the highest value habitats (southerly exposures below 800 feet) and applies them over the entire landscape. The result is an overestimate of carrying capacity. The DSEIS model assumes potential harvest rates of 10% to 30%, and compares those with reported harvest rates to judge whether conflicts exist. We recommend that the more conservative potential harvest of 10 percent be used in this analysis. Alternatively, the reported harvest should be expanded to include unreported kill (as much as 100% in small communities) and crippling loss (10-20%). Other deficiencies include the fact that the model does not account for reduced habitat value when existing clearcuts become secondgrowth during the 1981-90 time period. A long-term (100 year) cumulative effects analysis is essential to show what will become of deer. See the LPK 1989-94 DEIS for an appropriate cumulative effects analysis.

5. The SDEIS fails to consider impacts of timber harvest and road building on brown bear distribution and population levels.

The SDEIS should project changes in bear numbers as a consequence of

or the glossary.

CHAPTER 3

(page 4) Second-growth stands (to about 120 years of age) are characterized by far more (not fewer) dead and dying trees than old growth.

(page 5) The glossary of the Land Type/Timber Task Force Working report defines CFL as: "Forest land which is producing or capable of producing crops of industrial wood. This includes areas suitable for management and capable of producing in excess of 20 cubic feet per acre of annual growth. This includes accessible and inaccessible areas" (Page 35).

(page 10) Listing "domestic markets" (including the east coast, midwest states, and Pacific Northwest states) as "important" is misleading. Most of the pulp, and virtually all of the lumber exported goes to Japan. The percentage going to domestic markets, as well as the other countries listed, should be included parenthetically.

(Page 10) An export value of 236 million dollars for Alaskan forest products was reported in 1985. What was the value of exports from Southeast Alaska only? From Tongass National Forest Lands only?

(page 13) To evaluate the employment trends on National Forest lands, employment from Native-owned land and operations should not be included (or should be listed separately) in this table.

(pages 5-13) The SEIS devotes 6 pages (including tables and graphs) to describe the wood products industry and its important role in the economy of Southeast Alaska. Other economic sectors, namely fishing and tourism, are also dependent on National Forest Lands. The fishing industry gets two sentences of mention, and the tourism industry gets (indirectly under recreation) 2 paragraphs. Tables showing the revenue generated, the jobs provided, and the long-term trend in these economic sectors should be provided.

(Page 36) Table 3-15 lists existing and scheduled harvest in 5 VCU's. What is the harvest status of the other 9 VCU's in this analysis area? The title should make clear that the "scheduled" harvest is through 1990 only (all such tables).

(Page 36) Tables showing the TLMP operable acres by VCU should include a breakdown by volume class (").

(Page 38) Displaying the percent operable CFL remaining (e.g., table 3-18) presents a misleading impression of the viability of future timber sales in a drainage. For example, discussions with the IDT suggest it has been very difficult to lay out sufficient volume in these 4 analysis areas despite the small amount of CFL that's been logged. Most of the CFL left in previously entered drainages is, in a practical sense (e.g., considering economics), not really operable. Further explanation or justification of current status in more realistic terms is needed (all such tables).

(page 37) Table 3-19 shows 0 road miles in VCU 222. In fact, there are roads and active logging ongoing in this VCU.

(Page 38) Table 3-18 VCU 191 is missing.

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The table showing the "Acres Scheduled by 86-90 EIS by Alternative" (e.g., table 3-28) is missing for analysis area 2.

(Page 42) Table 3-21 should show VCUs 203,204, and 211 as NOI deferred. The "other" category should be changed to "not considered".

There is no table showing "Acres of existing timber harvest by VCU" for Analysis Area 3 (see table 3-15).

There is no table showing "Acres scheduled by 1986-90 EIS, by alternative" (see Table 3-28) for analysis area 3.

(Page 45) Table 3-24 should include acreage figures and number of units (see table 3-14).

(Page 49) Similar models developed for other emphasis species are now available and should be used in the phase 2 analysis.

(Page 52) Table 3-33 is uniquely titled. Also, table needs to display acres of existing and scheduled harvest in NOI-deferred VCUs, ROD-Postponed VCUs, and VCUs not considered (see table 3-15).

(Page 52) It appears the title that should have been applied to Table 3-33 was mistakenly used on table 3-34. The first 3 VCUs listed in Table 3-34 are NOI deferred (not ROD postponed).

(Page 53) Table 3-35 shows the acres scheduled by alternatives for 1986-90, not 1981-86.

(Page 54) First sentence should include mention of LTF at Corner Bay (VCU 236).

(Page 54) There is no logical reason to link VCUs 241-245 to Corner Bay for timber haul when 3 permitted LTFs exist in VCU 245, and 2 exist in Sitkoh Bay (VCU 243). What the Forest Service is proposing is to cut timber near Peril Strait, haul it by truck to Tenakee Inlet, and then tow it from Tenakee Inlet, down Chatham Strait, and back into Peril Straits (past existing LTFs) on the way to the mill. The Forest Service should acknowledge that the reason for connecting the road through Kadashan is that it makes Kadashan timber available for logging.

(Page 57) Table 3-38 has a footnote indicating two LUD II VCUs in this analysis area. A third, (VCU 403), is also classified LUD II. There is an incomplete sentence in the footnote.

(Page 58) The Acres and Units columns in table 3-39 are transposed

(Page 59) Strike "current-day".

(Page 60) Throughout this SEIS, the terms used to describe the status of various VCUs have been: "not considered, non-deferred, partially deferred, NOI-Deferred, and ROD-Postponed. In Summary table 3-44, there's a new one, "Notice of Intent Non-deferred" (??). Keep categories consistent from table to table.

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III A 20 (Page 9) Change column "Unit" to "No. of Units". Define "Serialized".

(page 11) Table 4-10 lists unit numbers harvested in 1981-85 period. The unit numbers are meaningless without access to a unit map (See LPK 1989-94 DEIS for example). More useful would be a table showing number of units, average unit size, and number of acres cut in each area. Is there some reason the period covered runs from 1981 through 1985 instead of 1986?

(page 14) Table 4-12 shows unit acreage changes from final EIS to laid out. It is distressing to see such a large difference between what was evaluated in the EIS and what was actually laid out on the ground. Although the total net acreage is similar, the changes show, essentially, that 20 percent of the acreage logged was not as described in the EIS. Our concerns with respect to high-grading and adverse impacts on fish and wildlife are heightened in this light.

(page 15) a common reason for moving unit boundaries is a desire to avoid "isolating" timber. This is an important consideration which should be explained in some detail. Since inoperable forestland is defined, in part, on economic considerations, presumably isolated timber is any timber that cannot be accessed economically (see LPK 1989-94 DEIS discussion of isolated timber). That would eliminate much of the forestland above existing units.

(Page 18-19) Is there some reason the DSEIS distinguishes between native and non-native use in these 4 tables?

Table 4-18. Analysis Area 1 is elsewhere called "Elfin-Pelican"

Table 4-23. Analysis Area 6 is elsewhere referred to as Corner Bay.

Table 4-25. In title, change Kruzhof to Kruzof.

(page 35) The literature cited in support of 10-30 percent sustained harvest levels is not in Appendix J-6, or Tables 4-36 and 4-37.

(Page 37) Is harvest by Juneau hunters used as a surrogate for "recreational harvest by non-rural hunters"?

(page 37) The statement is made: "Hoonah also wishes to maintain a timber harvest schedule which would provide long-term economic stability (Appendix J-2)". There's no obvious support for this statement at J-2.

(Page 38) Another reference is made here to sustainable harvest rates documented in the literature (Table 4-38). The table does not provide that documentation.

(Page 46) Table 4-43 We suggest changing subheads from "Record of Decision Postponed Timber Harvest" to "ROD-Postponed VCU's"; "Record of Decision Scheduled Timber Harvest" to "Nondeferred VCU's".(*)

(page 48) Table 4-44 shows acres and volume for NOI-deferred VCUs. There are no NOI-deferred VCUs in the analysis area. Timber available for harvest in non-

deferred VCUs is missing.

(Page 48) Table 4-45 shows acres of TLMP operable timber remaining. This table is very confusing. Each alternative addresses the same land area. The first 5 columns in the table (Operable CFL and prior harvest by time period) are identical for each alternative. Wouldn't different alternatives call for the harvest of different amounts of timber? Why is no timber considered available under alternatives J and the R.O.D.? The footnote is not referenced back to any part of the table.

(Page 49) SEIS states that no transportation system has been designed or surveyed to access timber available for further consideration. Doesn't the Life of Sale Plan require at least preliminary road design work to assess technical and economic feasibility? Why is such design and layout available on the LPK Sale Area (see 1989-94 DEIS) but not the APC Sale area?

(Page 49) Table 4-46 shows road miles for ROD-postponed VCUs, not NOI-deferred VCUs.

(Page 50) The phase 2 analysis should show more than just effects on species habitat. It should show effects on species populations, and on communities ability to successfully harvest/utilize those populations.

(Table 4-47) There are no NOI-deferred VCUs in this analysis area. The acres displayed here are probably for the ROD Postponed VCUs. Display the percentage of each habitat affected as well as number of acres.

Table 4-48 is mistitled. It shows number of deer, not number of acres. Is "Current Habitat Capability" as of 1981 or 1988?

(Page 52) It is not clear how the pink areas were identified. For example, VCU 210 includes over 6,000 acres of CFL. Subtracting the 1,600 acres proposed for harvest, that leaves 4,400 acres of old-growth in this watershed existing through the year 1990. For some reason, the map shows less than 100 acres. Further clarification or explanation is needed.

(Page 54) Assuming the plan view is correct, the perspective illustration incorrectly identifies old-growth prescription along the shoreline, and omits such prescription at the mouth of Gypsum Creek.

(Page 56) Table 4-49 shows no timber available under the ROD for 10 VCUs classified as "Record of Decision Scheduled Timber Harvest" (?) VCUs 205 and 207 are missing from the table.

(Page 58) Punctuation is lacking in the first line of the key. Omit "year of harvest and height of young trees has not been shown" (*). (Doubtful anyone would conclude otherwise.)

(Page 62) Using the accepted conversion factor (29.1 MBF/acre), a harvest 5,688 acres will provide 164,938 million board feet, (not 188.8 million).

(Page 63) In Table 4-51, the column under 86-90 harvest was apparently omitted. The ROD scheduled 6,940 acres from this analysis area. Table 3-21 shows 4,977 acres available in 1986-90 from this analysis area. Table 4-49 shows a total of 1,463

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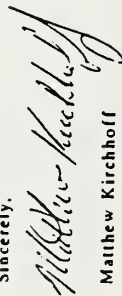
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- acres available under the ROD from this analysis area. Which, if any, is right?
- (Page 72) Is there a reason why only preliminary road access reconnaissance has been completed in nondeferred VCUs, and road location, survey and design is completed in deferred VCUs. Shouldn't it be the other way around?
- (Page 74) Table 4-54. Table shows deer numbers not acres. Why is there no reduction in habitat capability under the ROD?
- (Page 75) VCU 282 is ROD Postponed, not NOI-deferred. VCU 286 was "not considered", not NOI-deferred.
- (Page 76) Table 4-56 Why isn't timber available on ROD-postponed VCUs available for phase 2 analysis as well?
- (Page 82) If the available acres are added to prior harvest in alternative A, the percentage of acres remaining is 80.1 percent (not 76.2 %).
- (Page 91). The column headings on table 4-68 are wrong. There are no ROD-postponed VCUs in analysis area 12. The column titled "Non-deferred" should be labeled NOI-partially deferred.
- (page 94) Pink area (on plan view) is shown extending behind private land up to existing cutting units. Plan view shows more pink area along east shore of bay.
- (page 98) Under paragraph on roads, sentence is not completed.
- (page 100) 6 cutting units not shown on perspective view. Cutting unit at head of bay in perspective view is missing on plan view. Discrepancies between pink areas on two views
- (Page 105) 2 units proposed on plan view are missing on the perspective view.
- (Page 107) Why are the timber cruise estimates cited in Table 4-49 (and in tables for other analysis areas) so much lower than the cruise estimates agreed to between the Forest Service and APC?
- We hope these comments are helpful in developing the final phase 1 SEIS and the draft, phase 2 SEIS. Thank you again for inviting the Wildlife Society to comment.

Sincerely,



Matthew Kirchhoff

Southeast Representative
Alaska Chapter, TWS.

cc. Tom Franklin, Field Director.

IRB13

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CITY OF PORT ALEXANDER

Box 725 • PORT ALEXANDER, ALASKA 99836

3 October 88

James W. Pierce, SEIS Team Leader
USDA Forest Service
Alaska Region
Federal Building
P.O. Box 21628
Juneau, Alaska 99802

Dear Mr. Pierce:

Thank you for the opportunity to comment on the APC Long-Term Timber Sale Contract Draft Supplement to the Environmental Impact Statements for the 1981-86 and the 1986-90 Operating Periods, Phase 1. On the whole we find this document incomplete, inaccurate, and confusing. For the amount of information it contains it could be 1/3 its present size. In short, it is a poor effort even by past USDA Forest Service standards.

As a rural fishing community in Southeast Alaska dependent on commercial fishing and fish and wildlife resources for subsistence we have a strong interest in how the Forest Service manages the habitat that produces those resources. Like the communities of Tenakee Springs, Hoonah, Port Protection, and others, we have growing concerns that the Forest Service continues to ignore the potential detrimental impacts of industrial scale clearcut logging on subsistence use. Although this document purports to deal with those impacts, we have noticed several major deficiencies in DSEIS Phase 1 that need to be remedied.

First and most importantly, all reference to lands and wildlife habitat impacted by timber harvest is in terms of acres. As we indicated in our comments on the first "Draft EIS" for the 1986-90 Operating Period, presenting tables and comparing areas logged with those unlogged only on the basis of acres is inadequate and does not indicate true impacts of activity. These concerns were not addressed in the Final EIS and they still have not been attended to in this EIS.

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Acres alone is not an appropriate standard for comparison because all acres are not alike. The tables showing acres scheduled for timber harvest do not indicate the volume of forest in those acres, where those acres are, what are the comparative values of those acres to wildlife. Likewise, just denoting acres of habitat is insufficient. Besides, acreage, other measurable standards of comparison should be used. Because timber volume class is the only significant habitat indicator that has been inventoried on the Tongass, we feel it is essential that timber volume class be part of each table and each comparison of timber harvest alternatives for each VCU.

We have many problems with the subsistence discussion in the document. For instance:

1) What are the tables 4-18 through 4-33 supposed to be showing us? The titles are confusing, the table labels unclear. Why have you included them other than to demonstrate you have reams of data? Data does you no good unless you apply it to something. Are these uses of an area by communities or by individuals? If by community, what do they purport to show? Certainly they do not in any way indicate the importance of a VCU to a community's subsistence. As it stands, many interpretations are possible. If 80 people in only one community depend on a VCU for deer hunting it receives a value of one on your tables, whereas if only one person from four different communities uses another VCU that area receives a value of four. What is the significance of the row and column totals? Is each use being valued equally? These tables should be replaced with something more meaningful.

2) Your so-called "Cumulative effects analysis" is deficient. How can you say you are considering cumulative impacts if you stop your analysis at 1990? The whole point of the argument that roading and logging affect subsistence use is that the impacts are long-term. Impacts of habitat losses from logging are not experienced for up to 30-60 years after logging when clearcuts close over unless there is a severe winter before then. You should be projecting logging effects beyond 1990 to the time when these impacts will occur. (ie. 2050)

Roading effects are not considered cumulatively either. You should project the effects of roading beyond 1990. People will be using them far beyond the five-year period, and you will be expanding the road system in the future as well. The current Hoonah lawsuit should indicate to you the inadequacy of your subsistence evaluation up to now. Although roads may benefit an area for a short time those benefits do not last. As in the Hoonah area, an influx of hunters will result in overkill eventually and less deer for subsistence users. This may not occur within the operating period but will become evident later, and can certainly be predicted.

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Roading coupled with loss of deer habitat as a result of logging, produce a double-whammy on subsistence that has been ignored in this document.

3) We strongly question the assumption in tables 4-36 and 4-37 that 20% or 30% of a deer population can be harvested annually on a sustained basis. Again, the impacts depicted in these tables are not considered beyond the years of the operating period and so do not address our long-term concerns about subsistence.

4) The discussion and use of your so-called deer habitat capability model in Chapt. 4 page 32 is confusing. The inclusion of the Suring, et.al. model in the appendix seems deliberately designed to mislead the public into believing that is the model used for this "analysis". In the actual analysis why were only low elevations and southern exposure values used? These are optimum conditions and completely ignore the situations in which logging is apt to impact deer populations, namely harsh winters with heavy and prolonged snow cover. If you are going to ignore higher elevations and non-southerly aspects why bother to do the analysis at all?

Also, the habitat capability tables (4-48, 4-54, 4-60, 4-66, and 4-72) supposedly derived from this analysis are quite confusing. Do these show acres as the table titles indicate? If so, we find it hard to believe that in area 2 for instance there are only 9,936 acres of deer habitat out of 43,922 acres of "operable" forest. And what do these numbers of acres mean in terms of deer? Again, acres alone is an insufficient measure of habitat capability.

5) It is not enough to simply list what VCUs are used by rural residents for subsistence. It is also important to indicate which areas within a VCU are used by subsistence hunters, trappers, fishermen, etc. and specifically how proposed logging of those areas will affect subsistence use. Again, this cannot be done if you do not consider the effects of plant succession or roeding beyond the year 1990.

6) We note there is no discussion of impacts on fish streams. This is a serious omission.

7) Far more information is available about subsistence than the Forest Service has presented in this document. The agency should consult ADFG subsistence division and its own subsistence studies for this information.

Other observations about this document:

The maps like most everything in this document are confusing and incomplete and suffer from a lack of even rudimentary proof-reading. Several cuts (not A-frame) are missing from the Corner Bay map. All previous logging should be shown even A-frames. We applaud the use of perspective illustrations as giving a better idea of the lay of the land affected by logging. However, there are many

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Inconsistencies between them and the vertical views. Many cutting units are not shown. Also, commercially important timber (operable CFL with more than 30 mbf/acre) should be indicated on the VCU maps so a more accurate picture is given as to what amount of that type of forest remains.

Also, what is the point of the pink areas? Is that all the old growth wildlife habitat there is? If so, the impacts of logging are even worse than we thought. Why is there no old growth habitat shown in interior riparian areas? Are you insinuating that no deer or other wildlife are dependent upon interior areas? We note for the record that practically all logging has been located in stream bottoms indicating that the forest has been consistently high-graded for the best timber and not managed for sustained-yield timber production. This sort of logging isolates stands on the higher slopes and effectively takes them out of the operable timber base.

The definition of "Operable CFL" in this document is different than operable CFL in TMAP. This inconsistency makes reviewing the document difficult. All your jargon is difficult enough to decipher in these plans without your changing the definition of terms on us.

The statement on page 13 paragraph 5, "Congress has reviewed this matter and has not deemed it fit to change management direction to [sic] the Tongass National Forest" should be changed in light of the recent House passage of H.R. 1516.

There is a crying need for the Forest Service to hire people who can write clear, unambiguous English to prepare its EISs and who can prepare tables and present figures that mean something and can explain clearly what they mean. Also, why don't you hire proofreaders? It is pretty aggravating to us to find so many errors and omissions.

Finally, there is also the need for the Forest Service to view this and similar documents as valuable tools for proper management of the forest, and not simply as procedural hoops to jump through. The procedures are there to insure that thorough consideration is given to all aspects of forest management. If the agency approached its mission in this spirit to begin with and was more forthright and candid in dealing with the public, it would produce better plans.

We hope these comments are acted upon in the final phase 1 SEIS and the phase 2 draft document; and, we continue to hope that you will do a better job next time.

Sincerely,

Max J. Kinnear, Mayor

for the City of Port Alexander

#6

Southeast Alaska Natural Resources Center
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Dear Mr. Barton,

Thank you for the opportunity to review and comment on the draft Supplemental Environmental Impact Statement (SEIS) for the Alaska Lumber and Pulp Long-Term Timber Sale. The Phase I draft SEIS is the most aesthetically pleasing planning document the Alaska region has produced. The format and use of photos are excellent. However, we have never seen an National Environmental Policy Act (NEPA) document that is contains so many errors. errata sheet needs an errata sheet. More importantly, the document provides an overwhelming amount of information that is unapplied and/or is assumed to be "understood" by "tiering" the SEIS to other documents. Based on the quality of the SEIS it appears that the Forest Service is not willing to substantively improve the environmental disclosure for the Alaska Pulp Corporation long-term timber sale. From our perspective, we see an abbreviated planning process designed to create an illusion of meeting the spirit and intent of NEPA. There is simply no responsiveness to the public demands that the project planning and public involvement on the Tumpas be held to the same standards as other national forests.

Lack of Public Involvement

We are most concerned that the SEIS effort has circumvented the public involvement process. We doubt that the logic behind Phases I and II would have prevailed had a conventional public involvement process been conducted. For example, Phase I needlessly limits the scope of site-specific impacts and will underestimate cumulative effects. Furthermore, we doubt that the use of the deer habitat model would have been accepted had the simplified model and assumptions been available for professional review. Again, there appears to be more commitment to generating legal boiler plate than to correcting the NEPA deficiencies of the APC EIS. If the intent is to frustrate the public in endless documents to reinforce past decisions, the objective has been met.

Size and Scope of the SEIS is Overwhelming

The size and scope of the SEIS is overwhelming to the lay person. Because the project area covers nearly two million acres and spans a ten-year time horizon it is virtually impossible to comprehend the total environmental, economic, and social ramifications of each alternative. The scale of this problem exceeds that of many forest plans under the National Forest Management Act (NFMA). Yet these forest plans are not nearly as site-specific as the SEIS claims it will be.

From our perspective, the design of the SEIS should respond to the economic and environmental issues at hand rather than the size of the problem. It is because of the large size and scope of the project that the two-phase SEIS approach over-simplifies the problem and becomes self-limiting. For example, many of the "site specific" areas eliminated for further analysis in Phase I have already been altered and contribute to cumulative effects. We recommend an approach where all impacted and potentially impacted areas are studied to determine which management options will lead to unacceptable or adverse economic, environmental and social consequences. We believe smaller problems would be evaluated under this approach, making the NEPA documents more meaningful and understandable.

There Is No Meaningful Integration of EIS Alternatives

The scope of the SEIS is also overwhelming because it attempts to compare apples, pears and oranges in terms of "alternatives." Again this integration is through "tiering". Two separate sets of "alternatives" were developed by the Stikine and Chatham planning teams for the 1981-86 operating period. There is no common management theme between the two sets, except each alternative represents a large distinct geographic area. Furthermore, all but two of the 1981-86 alternatives are real since they can not stand alone and meet the decision criteria set forth for the preferred alternative. To further complicate matters, alternatives for the 1986-90 operating period are of a different type. The 1986-90 alternatives were based on various management philosophies over the entire five year operating period, such as, emphasizing economic returns based on timber appraisal values or giving top priority to amenity values.

The SEIS overcomes the complicated integration of alternatives by essentially ignoring the 1981-86 alternatives. To use the SEIS terminology, all three sets of alternatives are "addressed" (listed) in Chapter 2. However, only the unharvested portion of the preferred 1981-86 operating period (Alternative A for 1986-90) is included in the subsequent chapters of the SEIS. Thus, by design the SEIS truncates the alternatives considered for further study and forces the reader to estimate cumulative impacts by somehow integrating the 1981-86 and 1986-90 alternatives with the SEIS alternatives. For example, in Chapters 4 of the SEIS no attempt is made to correlate Alternative A with the areas yet to be harvested under the 1986-90 record of decision, the record of decision for the 1981-86 operating period, nor the other eight individual 1981-86 alternatives. The responsibility to integrate and evaluate Alternative A with these other alternatives is left up to the

reader through the process of tiering. Thus to comprehend cumulative effects, the reader must (1) determine what actually occurred during the 1981-86 period, (2) add the projected impacts of Alternative A described in the 1986-90 EIS (3) determine how alternative A may have been modified by the 1986-90 record of decision and (4) determine how all of the above have been changed by actual harvesting since 1986. Moreover, there is no supplemental information on monitoring actual environmental effects. The reader must accept on faith the planned activities and projected impacts described in the EISs for the areas harvested since 1981.

Extensive "Tiering" is Beyond the Comprehension of the Public

Additional "tiering" of the SEIS to other documents makes it even more difficult to evaluate what is planned for a given area, yet alone how this area may relate to other impacted areas and the range of management alternatives available.

To determine which rules and management alternatives apply to a given area requires an extensive knowledge of seven sets of documents. The physical dimensions of these documents alone are intimidating. Together, these documents weigh over 25 pounds and measure over 17 inches in height. Comprehending this amount of information is simply not within the realm of the general public, to say nothing of determining whether the information is consistent throughout (which it is not) and whether the "best" way to proceed for a given area can be explicitly demonstrated.

Major Information Gaps Still Persist

Even with the extensive tiering to the SEIS there are major information gaps. For example, no monitoring information is presented on how well mitigation measures are working and how special management considerations are being applied to areas designated IUD III (emphasizing amenity outputs) versus areas designated IUD IV (emphasizing commodity outputs)?

Other SEIS Design Problems

There are other SEIS design problems, such as, (1) establishing very large analysis areas for the "comparison" impacts and (2) eliminating many areas from detailed analysis, ostensibly because of time constraints until the 1986-90 operating period expires.

It is always easy to encompass two large and divergent planning approaches by making the problem more generic. This is why we believe the SEIS relies on very large analysis areas. In fact, the analysis areas are larger than that used in the Forest Land Management Plan (FLMP). Thus, the SEIS analysis areas appear inconsistent with the fact that both the 1981-86 and 1986-90 EISs are to be analyses of site-specific timber sales. We believe the choices to proceed with two divergent planning approaches in the 1981-86 and 1986-90 EISs were at the discretion of the agency, as well as, the decision to combine the two EISs into one SEIS. However, we do not

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believe these decisions exempt the Forest Service from meaningfully measuring site-specific impacts, i.e., to mask local impacts by wrapping them into very large analysis areas and thus underestimating cumulative effects.

Likewise, individual areas should not be eliminated because of the lack of permits for log transfer facilities and/or because there is not enough time to pre-road areas. Unharvested areas from the 1981-86 operating period are now eight years old. There surely has been ample time to gain the required permits and plan for roads in advance.

Summary of General Comments

The objective of the SEIS is not to take the path of least resistance or to bolster past decisions. The SEIS should document the best way to proceed, given alternatives and their cumulative economic, environmental and social impacts over site-specific areas. The pragmatic needs to simplify a very large problem and to retreat to only those areas with the least amount of legal/contractual conflict should not circumvent the objectives of environmental disclosure. We believe you understand our positions and concerns quite well. We also believe that the quality of the SEIS speaks for itself and there may be few chances to improve the substantive decisions stemming from the SEIS. Nonetheless, we offer our comments as recommendations on how to improve the SEIS and make it more meaningful. Because of the minimal public involvement prior to releasing Phase I for review, many of our comments are questions. We would appreciate a response to these questions before Phase II is completed for public review.

Our specific comments follow. (Our reference to pages in the draft SEIS list the chapter number first and the page number second, i.e., 2-1 would be page 1 of Chapter two.)

Specific Comments on the Draft Supplemental Environmental Impact Statements for the 1981-86 and 1986-90 Operating Periods

1. Page 1-2, last paragraph, the two phases of the (SEIS).

According to the draft SEIS, neither phase will consider changes in the Intaris operating areas (non-deferred VUs) that are identified in the Notice of Intent (NOI). This lack of total analysis is inconsistent with the intent of NEPA and one of the reasons that the APC 81-85 Final EIS was successfully challenged. While the court agreement allows timber harvest and road construction to proceed in areas without prior NEPA analysis, it does not delete these areas from analysis in terms of site-specific impacts as they relate to cumulative effects. How can cumulative effects be evaluated if only a portion of the impacts are further evaluated?

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It appears you are using a very narrow interpretation of cumulative effects and one that will be very difficult if not impossible for the public to validate. For example, if the analysis for these interim operating areas are assumed to be in the previous 81-85 EIS and/or the 86-90 EIS, then clearly site-specific impacts will not have been fully evaluated and disclosed by the SEIS. This lack of site-specific information makes the evaluation of cumulative impacts in the SEIS meaningless. Under your approach, one has to interpolate implicit impacts over broad areas which are displayed to one degree or another in several documents with those "site-specific" areas in the SEIS document. We recommend that the analyses leading to site-specific evaluations of impacts -- including the identification of the most cost-efficient management measures -- be completed in the SEIS on all areas available for harvest over the life of the contract. Only then will cumulative impacts be meaningful to those affected by the long-term timber sale.

2. Page 1-3, first incomplete paragraph.

The supplement is said to "...address all VCU's (deferred, non-deferred, or other) within the APC Contract area." First, this appears to conflict with the statement that interim operating areas currently being logged will not be included for further analysis in the SEIS. Second, the word "address" is vague and does not indicate whether the entire APC contract area will be further evaluated for site-specific impacts and cumulative effects. The definition of "address" in Webster's Dictionary that comes closest to the task of evaluating alternatives is, "To direct the efforts or attention of (oneself)." We suggest that the phrase be reworded to reflect what is normally accomplished in site-specific NEPA analyses. More specifically, the SEIS will (1) identify, describe, and evaluate the site-specific and cumulative impacts of alternatives for the 1981-85 operating period for the Alaska Lumber and Pulp 50-year timber sale contract and (2) demonstrate why the attributes of the alternative selected best meets the provisions of the APC long-term timber sale contract and legal requirements applicable to the national forest management and environmental protection.

3. Page 1-3, under, purpose.

We recommend that the objective of the SEIS be to identify site-specific impacts of continued logging within the APC contract area and to display which measures were evaluated and selected to mitigate adverse impacts (site-specific or cumulative). We further recommend that all impacts be evaluated within the total context of the long-term timber sale, i.e., past and future logging needed to complete the contract over its 50 year life.

The discussion of your preferred action within the SEIS documents need to include (1) options available to access/harvest the area, (2) what specific evidence that supports the proposed action as the "best" way to proceed, and (3) possible tradeoffs between economic, environmental and other consequences should the second, third or fourth best options be implemented. Likewise, the discussion of cumulative impacts needs to include (1) alternatives considered and their associated tradeoffs, (2) how the total impact of

site specific impacts are increased or decreased due to the environmental conditions in adjacent areas, (3) how these impacts (favorable or adverse) spill over onto other areas of the forest, and (4) how these existing impacts will be further affected by completing the contract by 2011.

Most important are the estimated cumulative impacts of fully completing the APC timber sale contract within the sale area. For example, we know how much additional volume is to be made available within the sale area. For the SEIS, we recommend that this information be coupled with (1) the economic and environmental characteristics of this remaining timber, (2) what market conditions must be present to make this timber economically viable, and (3) how important these areas are to other resource uses such as wildlife and fisheries production.

From the Purposes section on page 1-3, the recommended SEIS objectives above are not specified. We recommend including these objectives into the SEIS to make it consistent with the environmental analysis requirements under NEPA and the court agreement.

4. Page 1-4, Under Need.

While the needs list on page 4-1 include some of the elements we have recommended in our above (Number 3), your discussion of needs is vague concerning the degree to which you will analyze site-specific and cumulative effects in the SEIS. For example, in Item 3, it is not clear what "alternative road and harvest configurations" means. The discussion of alternatives must go beyond the location and timing of harvesting in the generic sense. For example, what are the silvicultural options, logging systems, transportation modes that are available? Again, supporting evidence should be included on why your preferred action is the "best" way to proceed and what are the tradeoffs should the second, third or fourth best options be implemented instead. Also, the alternatives considered must go beyond timber management and look at the current management objectives of other resources such as wildlife, fisheries, recreation, and visual quality. What are the options for these other resource programs and how are these options affected by the APC timber sale contract?

Likewise, Items 4 and 5 are not clear on how cumulative impacts are defined. For example, the word "foreseeable" needs to be clarified in terms of future harvesting within the sale area and on adjacent areas such as private lands. We can understand the speculative nature of anticipating the harvest of private lands, but there is much more certainty on the remaining contractual obligations and the additional timber harvesting required within the APC sale area. We recommend that the time horizon for the analysis be explicit, i.e., to the end of the operating period and to the end of the contract in 2011. If the time horizon does not extend to the end of the contract, this will unnecessarily limit the public's ability to determine the cumulative effects on their social, economic, and environmental well being. In any case, we believe you should make your Needs section more explicit, especially in terms of the time horizon for the analysis and the type of impacts which will be measured.

4. (a) Page 2-1, under Origin of Analysis Areas.

While the origin of VOs and Management Areas are clear, there is no supporting evidence in the SEIS on why the APC contract area is divided into even larger areas for analysis than for the forest plan (TUMP). Setting the size of the analysis area should be a function of the resources affected and the need to sufficiently measure the site-specific impacts of land management practices. In contrast the size of the analysis area should not be the primary result of an administrative decision to cover a overwhelming large problem. Supporting evidence needs to be included as to why the Analysis Areas were chosen over other alternatives, especially smaller units where site-specific impacts would be more logically measured.

Also, the consistency between the TUMP process and the SEIS needs to be more clearly displayed. The management area analysis (MAA) called for in the TUMP amendment is designed to select and rank projects such as individual timber sales and fisheries enhancement within management areas. These determinations are to be awarded periodically -- annually if needed -- to meet changing resource conditions and management opportunities. Going one step further under the TUMP direction, the size and design of these projects are to be determined at the local/project level and displayed in the environmental disclosure documents. In contrast, the SEIS process has an illusion of the TUMP framework, but actually is substantially different. The principal difference is that the long-term sale timber volumes are large and fixed over long periods of time, thwarting any revisions due to changing conditions.

The scale of the five-year operating plans greatly exceed the average project scale of independent timber sales which are subject to the same TUMP and NEPA requirements. In fact, the scale of these five-year operating plans is at least 10 to 11 times greater than the NEPA analyses for most independent timber sales on the Tongass. Thus, a general measure of adequacy concerning the size of analysis areas -- the basic building block in a NEPA evaluation -- should be the average size or norm used in conventional timber sales for other national forests in the Pacific Northwest. Any deviations from this norm should be based on the unique resource conditions that can be demonstrated to occur within the APC contract area. We recommend the rationale for selecting the size of analysis areas be explicitly displayed in the beginning of the SEIS. We are further concerned that the current size of analysis areas is much to large and will mask significant environmental effects at the local level, such as, accelerated sedimentation and changes to water quality affecting fisheries habitat.

How the SEIS will be incorporated into the TUMP revision process needs to be more explicitly specified, especially where the analysis of cumulative effects over a longer time horizon than contemplated in the SEIS will be deferred to the TUMP revision. Since the magnitude of the SEIS is more like a forest plan and will indeed set the management direction for the first five years of the revised TUMP, the sophistication of dealing with multiple-use issues and cumulative effects common to forest planning should be conducted in the SEIS to make it consistent with the new TUMP. The issue of having a separate planning process for the long-term sales and allowing the results to

largely set the direction of the revised TUMP under the National Forest Management Act (NFMA), is an issue that is currently before the Congress. How this issue will be treated in the SEIS should be included in the narrative concerning ties between TUMP and the SEIS.

5. Page 2-2, under Chapter 2 of the Supplement, Items 3(a) and 5.

For Item 3(a), see comment 4 above concerning the selection of the size of analysis areas.

For Item 5, more than a summary of the standard and guidelines applied and amended is needed. Based on the section, "Relationship to Other Planning Levels" on page 4-1, the standard and guidelines are not displayed but only tiered back to the Alaska Regional Guide and/or the Area Guide. However, these documents prescribe only general management guidelines for each resource, they do not prioritize which guidelines should be applied or foregone when inevitable resource use conflict exist. Such tradeoffs were common in my experience as a Forest Service hydrologist on interdisciplinary planning teams, especially where timber volume targets were fixed for a given area as in the APC EISA. In other words, the aggregate of all standards and guidelines in the Regional and Area guides only represents the best of all possible worlds and are not usually achievable if timber sale volume targets and commitments are set in advance and taken as a given. Thus, the discussion in the SEIS must include which standards and/or guidelines are sacrificed and why this was the best way to proceed. Furthermore, there needs to be discussions on the required monitoring results of the management standards and guidelines. Some of the standard and guidelines have been in effect since the Area Guide was completed in 1976. It needs to be demonstrated whether these measures were followed and how effective they have been. Without this type of monitoring information, there is no way to judge whether the mitigation measures prescribed in the EISs are effective. In any case, the objective to provide this type of information in Chapters 2, 3 and 4.

In addition to the standards and guidelines in the Regional and Area guides, there are additional guidelines in TUMP as they relate to timber harvest in LUD IV versus LUD III areas. Briefly, LUD IV areas are to be more intensively managed for commodity production, while LUD III areas permit timber harvest but with an emphasis on amenity output. The SEIS should identify whether areas under evaluation are in LUD IV or LUD III and what measures are being prescribed to meet the stated management intent in TUMP. It will be especially important in the SEIS to demonstrate the special management considerations, such as road and timber sale design within LUD IIIs since this was not shown in the 81-86 and 86-90 EISs.

6. Page 2-2, under Areas Considered but Eliminated from Detailed Study

Your interpretation of Section 15(b) of the National Forest Management Act (NFMA) goes well beyond its context within NFMA. Section 15(b) recognizes that the long-term contracts exist and that they do not conform to the new NFMA management direction. The long-term contract provisions are outdated in terms of timber sale contracts in the late 1970s. Most important, Section 15(b) directs the Forest Service to modify the contracts and

bring them into compliance with NPSA. This is a long-standing issue. More specifically, it should be documented in the SEIS where the APC contract prohibits the Forest Service from applying in the SEIS where the APC contract within the APC long-term sale versus independent timber sales on the Tongass. For example, if old-growth areas are set aside for wildlife temporarily because the timber within will be eventually needed to meet the contractual volume commitments of the APC long-term timber sale, then such temporal protection should be identified and discussed in the cumulative effects analysis.

7. Pages 2-3 to 2-10, under Areas Eliminated from Detailed Study, 1981-86 EIS.

The intent of the settlement agreement was to allow the timber industry to operate while the Forest Service brought the 1981-86 APC FEIS into compliance with NEPA. Yet many areas under the SEIS are eliminated on the basis of whether they are practicable in terms of the time remaining to build roads, establish/reestablish log transfer facilities or whether the timber is cost-effective. More important, there is no information readily provided to support/justify these decisions. For example, there is no explicit definition for the term "cost-effective". Is "cost-effective" a measure of (1) stumpage values, or (2) timber receipts versus Forest Service costs to prepare and administer the timber harvest, or (3) the net economic value of timber and other resources affected? Furthermore, many of the areas eliminated have existing roads and harvest units. It is not appropriate to eliminate such areas because you originally failed to comply with NEPA in the 1981-86 EIS and now say your hands are tied due to the time remaining in the operating period. This suggests that the NEPA decisions are predetermined. Many areas in the 1981-86 operating period were released for harvest but remain unharvested today, even though these areas were carried forward into the 1986-90 operating plan and were to be harvested first (see APC-Forest Service 1985 agreement). How many of these areas are being eliminated from further analysis? In any case, the SEIS elimination process unnecessarily constrains the evaluation site-specific impacts and the alternatives to minimize cumulative impacts.

8. Pages 2-12, Alternatives Eliminated from Detailed Study in the 1986-90 EIS, Other documents and Facts Considered and Evaluation of Current Situation.

The viability of the TUMP allowable sale quantity (ASQ) has been debated at length in congressional hearings, as well as, the viability of the remaining timber within the APC contract area. There are over 1,000 pages of testimony on the Tongass Timber Reform Act that is new information that should be included within the SEIS, especially in terms of alternatives to reduce the timber volume commitments in the APC contract. More specifically, information of the deferral of low-volume timber stands to future operating periods and how this will impact the economic viability of future timber harvests should be evaluated as a cumulative effect. What are the alternatives to prohibit this practice? Also, the SEIS should determine if the APC administrative claim is correct in that you are not making economic timber available to them under terms of the APC contract. In any case, there is new

information on these long-standing APC timber sale issues, which should be incorporated into the SEIS.

9. Page 2-13, Alternatives Eliminated from Detailed Study in the 1986-90 EIS, Harvest Timber in Direct Proportion to Their Occurrence.

The statement within the SEIS that harvesting in proportion to occurrence would not necessarily reduce environmental impacts, or result in logical timber harvest units and roads, is not explicitly supported and needs to be displayed in the SEIS.

10. Page 2-13, Alternatives Eliminated from Detailed Study in the 1986-90 EIS, Change Tongass Land Management Plan Land Use Designations to Maximize the Use of Specific Resources.

We agree that land-use designations should be changed within the forest planning process, but that the SEIS should evaluate where a change in land designations is desirable to meet the NPSA management direction and/or the timber sale contractual requirements. This is especially important because the long-term timber sale EISs have a major impact on the TUMP revision, effectively setting the management direction for the first five years of the revised plan. Recommended changes in land use designation within the SEIS, however, should be evaluated in detail for each alternative and not just one alternative having this as its primary objective. Furthermore, there needs to be an explicit accounting of how the TUMP management direction is being achieved, i.e., how LUD III areas are treated differently in terms of APC's logging then in LUD IVs. Also, how this would change with a different mix of land-use designations. Such an analysis would be similar to your planned evaluation of areas temporarily protected in the Tongass Timber Reform Act (H.R. 1516). Also you seem to assume the H.R. 1516 areas will be totally eliminated from the contract area. Other alternatives need to be evaluated as well (see our comments, number 5).

11. Page 2-16, Alternatives Eliminated from Detailed Study in the 1986-90 EIS, Use of Native Corporation Timber etc., Evaluation of the current situation.

The use of timber by APC from sources other than their long-term timber sale is relevant to the SEIS, pending legislation and the annual appropriations process for the Tongass. For example, there is concern over APC's ability to defer timber they do not want harvested, while continuing to carry this timber over from one operating period to lower average stumpage rates. This practice by APC has become known as the high-grading issue.

Each time low-volume timber stands are deferred from harvest and higher volume stands are substituted greater conflicts are generated between timber and non-timber resources. High-volume timber stands have a greater importance to wildlife and fisheries, just like they have a higher timber value. Simply, the more productive timber sites coincide with the more productive sites for providing habitat.

Also, the repeated costs of constantly planning and preparing timber which has been continually deferred from harvest is being scrutinized. Thus, opportunities to modify the contracts -- like the 1985 agreement or increasing the use of timber from other sources -- should be considered in the SEIS alternatives. No options should not be dismissed because it is not part of the existing contractual agreements. The existence of the 1985 APC-Forrest Service agreement indicates that viable alternatives do exist outside of the current SEIS context. These new alternatives should be evaluated in the SEIS.

12. Pages 2-19 and 2-20, under Alternatives Considered, 1981-86 Alternatives.

The SEIS should explain the vast difference between the two complete alternatives for the 1981-86 EIS, i.e., APAs and the Preferred. In the AP alternative only eight miles of roads are required versus 290 miles of roads in the preferred alternative. The extent of the road network is an important issue as it affects the potential amount of timber along existing roads which is generally less costly to harvest.

13. Pages 2-21 through 2-23, 1986-90 Alternatives, Alternatives a through j and the Record of Decision.

It is very difficult, if not impossible, to correlate the 1986-90 alternatives to the 1981-86 alternatives since the 1981-86 alternatives are based on general geographic areas while the 1986-90 alternatives are based on general management intent, i.e., the protection of anadromous fish, deer winter range, etc., versus the economic return to APC. Furthermore, the 1981-86 alternatives are described by their geographic name, while the 1986-90 alternatives are encoded by their VOI number. We recommend that the alternatives displayed in the SEIS be described consistently over the two operating periods.

Under Alternative G, it is stated that 352 acres are proposed for harvest. We were not able to verify this number by checking back to the tiered documents, but it appears that this is an error and should be 352 harvest units.

14. Page 2-24, under Standards, Guidelines, and Mitigation Measures.

Your statement that the framework for evaluating, monitoring and assuring balanced resource management were incorporated into the final EIS for the 1986-90 operating period may be correct but is not relevant. The framework is not in question, but whether this monitoring has been applied and successful. Furthermore, the bottom line is whether the management practices are working as planned and can be demonstrated to be cost-effective.

During my 12 years on the Tongass, there was never a systematic monitoring process to determine if the management standards and guidelines were applied, let alone if they were successful. Formal scientific monitoring was

dismissed and replaced by periodic and informal program reviews. The program reviews were not systematic and basically centered around short field trips.

Since all standards and guidelines applicable to an area cannot not be applied, they are only meaningful on a site-specific basis. Consequently, one of the purposes of environmental analyses is to identify tradeoffs between the various standards and guidelines. To suggest that no further supplementation of standards and guidelines is necessary in the SEIS ignores the facts that site-specific analyses have not been conducted in either of the 1981-86 or 1986-90 EISs and that descriptions of the standards and guidelines is a critical component of site-specific analyses.

On example showing that all the standards and guidelines are not being implemented are the discussions concerning Alternative 3 in the 1981-86 final EIS. This descriptions demonstrates the need for detailed monitoring information in the SEIS, especially on areas already harvested.

From page 25, describing Alternative 3:

"...This alternative was developed to emphasize resource protection under the guides known as best management practices (Chatham Area Project Guidelines.) Harvest units average 35 acres and 236 miles of roads are required to access 395 Mftm....Since the Tongass Land Management Plan specified that all of the timber volume (except that set aside as retention) must be harvested over a rotation to provide even flow/sustained yield, some adverse impacts were tolerated...."

Going on to pages 42 and 43, Alternative 3 is evaluated within the context of successfully implanting relevant standards and guidelines on the ground.

Management Alternatives presented in this environmental statement represents various levels of meeting the laws, regulations, and policies.

The data presented in this EIS is based substantially on photographic interpretation except in the East Klu management area; hence, this data does constitute the level of information needed to say with certainty that all laws, regulations, and policies will be met. When implemented, considerable flexibility exists to make the changes necessary to assure that the plan is in conformance with these laws, regulations, and policies.

Alternative 3 (Chatham Area) and 4 (Stikine Area) represent the form of management with the greatest degree of assurance for meeting this criteria. Alternative 1 includes management actions most likely to require on the ground modifications to fully meet existing laws, regulations, and policies....

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Just what modifications are made at the field level, and what degree of risk and uncertainty are actually taken are critical pieces of information in the SEIS. Monitoring information on which measures taken and forgone and the associated risks were in compliance with the laws, regulations, and policies should be available from field layout notes and timber sale administration records. To say to the readers just trust me, we have already sufficiently "addressed" this issue is insufficient.

15. Page 2-26 to 2-30, under Comparison of Alternatives.

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It is not clear what the ranking of high, low and marginal priorities means in terms of Phase II. Are low-priority areas deleted from consideration? Will the volume target set by your interpretation of the long-term contract be met from all high priorities first, then marginal areas, and finally, low priority areas? The ranking is confusing because some areas having a low priority are to be managed as roadless areas (LUD II) while other areas such as Ushak-Hoonah Sound (Analysis Area 5) are LUD III or LUD IV and are also ranked as low priority. We recommend a more explicit explanation of what the ranking means and how it affects Phase II.

16. Page 2-27, under Analysis Area 5, Ushak-Hoonah Sound.

The rank of this "alternative" is conflicting throughout the SEIS. On page 2-27 it is ranked as low priority, yet Ushak-Hoonah Sound is ranked as marginal in the Summary on page 2-30 and also in the Summary in the front of the document. The treatment of Ushak-Hoonah Sound needs to be clarified. This area is important to the subsistence needs of local residents and is part of the pending Tongass Timber Reform Act.

17. Page 2-31 to 2-32, Summary of Phase II Analysis Areas and Implications for Phase II Analysis Based on the Summary of All Analysis Areas.

It's not until the "Summary" that your decisions on each analysis area become apparent. The summary does not summarize the rationale and conclusions in the main text of Chapter 2, but is merely a separate statement of which areas will be evaluated in Phase II.

The alternatives from the 1981-86 operating period seem to evaporate in the SEIS. Only alternative A in the 1986-90 alternatives remains as the 1981-86 representative. Alternative A only accounts for the volumes not harvested in the 1981-86 period and is carried over to the 1986-90 operating period. By limiting the further analysis for harvested areas from 1981-86, you will exclude the site-specific impacts of these areas, which in turn will underestimate cumulative effects. All areas and alternatives in the 1981-86 period must be included in the SEIS to make it meaningful.

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The summary (decisions) of Phase II analysis areas relies extensively on the concept "practicable," especially within the context that the volume set in the 1985 APC-forest Service agreement. The volume requirements are not sacrosanct, as demonstrated by the 1985 agreement. Other options such as cash payments may be viable. In any case, the "practicable" approach

does not get at the heart of the matter of which areas should be included based on the environmental, economic, and social consequences. Rather, the "practicable" approach appears to rely on a contractual straight-jacket that doesn't exist and plays on the equity concerns exhibited by the courts. In Table 2-1, Practicable Timber for High Priority Areas (HPIA), it would be useful if the geographic names of the areas in question were displayed instead of their analysis designation.

A value of 550.3 HPIA is shown to be needed on page 2-32. This value conflicts with the contract requirements of providing a lesser amount of 521 HPIA. This difference should be explained. A 30-HPIA discrepancy could make a major difference in the environmentally sensitive areas such as Mud Bay-Neka or Corner Bay.

18. Pages 2-23 through 2-34, under Analysis Areas.

In the discussion of each analysis area, the discussion of alternatives needs to include the 1981-86 alternatives and should be described by their titles and not their letter or number designation. For example, on page 2-32, under the Mud Bay-Neka narrative, the description is as follows:

"Alternatives E, F, and G as modified by the 1986-90 Record of Decision, provide the same amount of timber...."

It would be far more enlightening if the description went something like this:

"The 1986-90 alternatives that emphasize economic returns, with and without entering Kachashan, or the alternative which was to designed to stabilize the community of Hoonah, provide the same amount of timber...."

Again, perhaps the size of the problem limits the ability to refer to the 20 different alternatives by title rather than by their consecutive number or letter designation.

In the VCU listings for Rulu (AA12), we believe that VCU 405.1 should be included in the East Rulu Management Area S09.

19. Page 2-35, Figure 2-1.

Figure 2-1 shows no boundary between the Mud Bay-Neka (15) and Neva-Upper Kuzof (18) analysis areas. Also, the Errata sheet is in error. We believe VCU 235 is Kachashan which would be in the Corner Bay (16) analysis area rather than the Kelp Bay-Hidden Falls (19) analysis area.

20. Page 3-5, Under Commercial Forest Land.

The definition of "commercial forest lands" (CFL) needs to be explicitly defined, including the relationship to the suitability and operability criteria used in TIMP to define the timber base. More specifically, it needs to be pointed out that commercial forest lands are any forested areas that meet a minimum timber growth rate regardless of whether it is accessible or economically viable. Likewise, a discussion is needed of why more of the 5.7 million acres of CFL outside of wilderness are not scheduled for harvest.

Most important, there needs to be further discussion on the characteristics of the existing timber base, with an emphasis on the planned versus historical use of the lower volume timber stands, i.e., 8-20 mbf/acre. The character of the overall timber base should be compared to the characteristics of the timber available in the APC sale area to determine whether meeting the terms of the existing contract will further increase the overall dependence on low-volume stands for timber operators after the contracts expire (see our attached testimony in support of S.708, The Tongass Timber Reform Act).

21. Page 3-8, under Round Log Exports, Southeast Alaska's Log Exports and Southeast Alaska's Pulp Industry.

There is question whether unprocessed logs have displaced cants in export markets. This conclusion was in part drawn by a study completed by Paul Gallagher and myself. Because we published our findings in the early 1980s, log export information was scant and we relied on log export data from the Pacific Northwest as a proxy. In any case, more recent findings by the Pacific Northwest Forest Experiment Station suggests that the logs and cant are more appropriately defined as complementary products rather than substitute products. If so, then the demand for logs and cant should rise and fall together depending on the price for common end-product uses, i.e., housing. We recommend this relationship be clarified and corrected in the SEIS.

More discussion needs to be made on the availability of low quality logs from native corporation lands. This is an issue, not only in the SEIS, but in the ongoing court agreement. Upwards of 250 to 300 MMBF may be available which could substitute for all of the APC's pulpwood needs.

22. Page 3-9, under Timber Supply.

The heading is a misnomer. What is described here is timber harvest by major owners in southeast Alaska. The narrative accurately describes the information as log consumption. So does Table 3-1, Southeast Alaska Timber Use. In any case, the relevance of this information to the SEIS decisions are not clear. What is relevant is that timber supply -- a price/quantity relationship -- be established for the APC long-term timber so that the effect of rising or lowering prices of substitute timber (State, native corporations, British Columbia, etc.) can be evaluated. This would better define the potential for other timber sources to help meet the needs,

especially while other areas are being evaluated in detail in the SEIS.

23. Page 3-10 through 3-14, under Markets and Economic Impacts.

The information on product values and exports is dated and much to abbreviated. Much of the information only goes to 1986. Updated information should be available to the second quarter of 1988. We recommend a table showing the value and quantity of log, lumber, woodchips and pulp exports from 1977 to the second quarter of 1988 be included in the SEIS. Similar tables have been displayed in the annual timber supply and demand reports under Section 706(a) of ANILCA. Also, it would be helpful to have graphics on (1) the yen/dollar relationship between the U.S., Canada, and Japan and (2) Japan housing starts with wood-based and non-wood-based starts broken out separately. More importantly, there needs to be a discussion on how the changes in the above conditions will affect the demand for APC long-term timber versus their competitors in southeast Alaska, the Pacific Northwest, and British Columbia. Without this information, the existing write-up has little relevance.

Several statements are made on Alaska's market share for dissolving pulp, but are only supported by the fact that one Japanese pulpmill has closed and that the southeast Alaska market share was in 1985. Alaska's dissolving pulp market share should be updated to 1988. The SEIS should also trace previous market shares from 1977 to present. This will allow the reader to determine what you mean by an "ebb" in pulp demand or "likely increases" in market shares. This type of information is readily available from the timber industry.

The Tongass Timber Act of 1947 only allowed the construction of pulp mills in spite of on-going Native land claims. The act did not establish the long-term timber sales. Long-term timber sales were established by the Forest Service through contracts. The reference to the 1947 act gives the illusion that establishing the 50-year contracts was a long standing interest of the Congress, rather than the Forest Service.

23. Page 3-14, under Native Selections.

It is not certain whether the 70 percent requirement is tied to (1) national forest lands, (2) the Tongass, or (3) the APC contract area. It is our understanding that it applies to the APC contract area and that the requirement is negotiable through simple vehicles such as the 1985 APC Forest Service agreement. For example, the requirement was reduced to 29 percent for the 1981-85 period. These opportunities to be flexible on contractual agreements should be clarified and elaborated on in the SEIS.

Again, the availability of native timber needs to be clearly identified to determine the real range of opportunities and alternatives in the SEIS (see our comments number 21 and 22).

24. Page 3-15, under Access, Table 3-3, Miles of Road Constructed Since the 1986-90 EIS Record of Decision.

IIA 22

The areas listed should be identified by geographic names and not just VCU numbers.

The display is not particularly useful without some reference to what was planned versus what was actually constructed, and how many miles of roads were constructed prior to 1986-1990 Record of Decision. The SEIS should provide these additional comparisons.

The road miles constructed on East Kulu, (VCUs 416, 417, 418, and 419) needs more explanation. For example, why were these remote VCUs entered for road construction when other more economical areas were available for harvest?

IIA 21

25. Page 3-17, under Table 3-4, Emphasis Species and Habitat

We question why black and brown bear habitats are not included in "forested" areas?

26. Page 3-18, under Deer Winter Range Habitat.

The definition and treatment of deer winter range is very broad since it includes all accessible areas based on the mildest of winters. In terms of deer populations and habitat, the availability of winter habitat in the severest of winters is the limiting factor. Thus, the discussion in the SEIS should be expanded to describe critical deer winter habitat and population dynamics after a severe winter. The Mitkof Island experience would be a good starting point.

II E 12

27. Page 3-20, under Forested Habitat.

Perhaps the best example of the SEIS approach to just provide document headings versus professional analyses, is the treatment of forested habitat. The two profound lines dedicated to forest habitat in the SEIS says it all:

Forested habitat is a general forest-cover habitat. Many wildlife species make use of all forested areas within the area.

For each habitat type, there should a discussion on its variability and quality over the ARC contract areas and which habitat elements are known to be significantly affected by logging. For example, elevation, slope aspect, understorey composition, canopy structure, distribution of tree ages, and timber volume class are all important elements in forested habitats. The SEIS discussion should focus on those elements most affected by road access and logging.

28. Page 3-25, under Table 3-5, Hoonah Subbasin Use Value Comparison Units (VCUs).

The source for the information displayed in Table 2-5 is the 706(a) Report. Which annual timber supply and demand report does this refer to? The same reference is made in other tables referring to other communities. Also, we never received a formal copy of the 1987 706(a) Report and would appreciate being put on your mailing list for future reports.

29. Page 3-26, under Argoon.

In the discussion, it should be added that Argoon is one of the best examples where economic development has come and gone, yet the community and its subsistence way of life remained.

30. Page 3-29, under Petersburg and Kake.

One important reason not included in the discussion about Peter Ruedemann locating his cannery in Petersburg was the availability of glacier ice from the nearby LeConte Glacier.

Although Kake may have been "founded" some 90 years ago where a present village exists, it is our understanding that this site is one of the oldest village sites in southeast Alaska, going back perhaps thousands of years.

31. Page 3-31, under Sitka.

The discussion on Sitka infers that fish processing in Sitka is non-existent. Sitka Sound Seafoods and other processors are located in Sitka. Sitka has a very important forest-dependent, commercial fishing and processing industry.

32. Pages 3-34 through 3-61, under Current Situation - Areas 2, 3, 5, 6, and 12.

For each Analysis Area, it would be helpful to list the VCUs by geographic name and VCU number rather than by the VCU number alone. While the maps are better, the display of geographic names would reduce the amount of cross-checking between the document and the map.

The tables in this section are particularly difficult to follow, especially how the categories and numbers relate from one table to the next. Furthermore, the same table format is not consistent from one analysis area to the next, and in one case an entire table appears to be missing. There are also simple addition errors and some column headings are transposed. Most important, there are no clearly stated objectives on why this information is presented and relevant to the SEIS.

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II E 14

33. Page 3-35, Tables 3-13, Analysis Area 2 - Timber Harvest Status and Table 3-14, Analysis Area 2 - Timber harvest Units and Acres Scheduled for Harvest by Operating Period.

There is no clear relationship between Tables 3-13 and 3-14. For example, why is VCU 223 excluded in Table 3-13 when from Table 3-14 it appears that it contained harvest units in the 1981-86 operating period? On the other hand, maybe VCU 222 should be excluded from Table 3-14, since both VCUs 222 and 223 were not considered in the 1986-90 operating period based on the information in Table 3-13.

34. Page 3-36, Table 3-15, Analysis Area 2 - Acres of Existing and Scheduled Timber Harvest and Table 3-16 Analysis Area 2 - TIMP Operable Acres by VCU.

In Table 3-15, it is not clear what is meant by Scheduled Harvest Acres and what time horizon it represents. Does "scheduled" mean (1) in TIMP for the first decade, or (2) within the APC contract area, or (3) part of the 1986-90 operating period?

While the harvested acres between Tables 3-15 and 3-16 are consistent, the scheduled harvest acres in Table 3-15 are different than the acres available in Table 3-16. In Table 3-15, the total area scheduled for harvest in Analysis Area 2 is 1473 acres which is substantially less than the 1139 acres available for harvest in Table 3-16. This difference is particularly confusing since the VCUs contributing to this difference were not postponed by the 1986-90 Record of Decision (ROD) and/or deferred by the court's Notice of Intent (NOI). For example, in Table 3-15, 246 acres are scheduled for harvest in VCU 222 (a non-deferred VCU), yet Table 3-16 indicates that only 190 acres are available. Likewise, for VCU 202, Table 3-15 shows that 937 acres are scheduled for harvest, while Table 3-16 indicates that only 728 acres are available. These are significant fall-downs. Are the missing acres in Table 3-16 acres available but, for some reason, are not being considered?

The differences between Table 3-15 and Table 3-16 do not seem to be explained by differences between timber scheduled in TIMP versus the timber planned for harvest in the five year operating plans. For example, VCU 202 or VCU 222 are not postponed by the ROD or deferred by the NOI. Furthermore, it must be remembered that TIMP only scheduled acres for the first decade, 1980-89, since it relied on the Timber RMY model rather than FORPLAN model. However, the time horizon in Table 3-16 spans the TIMP harvest schedule on both ends (1976-90 versus 1980-89). Thus, the scheduled harvest acres in Table 3-15 should be less than or no more than equal to the acres shown as available in Table 3-16. Just the opposite is shown. The differences between Tables 3-15 and 3-16 need to be corrected or clarified. Again, the SEIS should explicitly show the relationship of the TIMP harvest schedule to each of the five year operating periods included in the SEIS, i.e., 1976-81, 1981-86 and 1986-90.

35. Page 3-37, Table 3-17, Analysis Area 2 - Existing Roads and Roads Scheduled for Construction by the 1986-90 Operating Period Record of Decision.

It is not clear whether the road miles listed are specified roads, temporary roads, or both.

It is not clear what "Prior EIS Miles" means. Are these planned or constructed? If these prior miles are already constructed they should be a subset of existing miles and thus not additive to existing and scheduled roads. On the other hand, if the "Prior Miles" are planned but not yet constructed, then why are they not included in the unharvested and/or unroaded timber made available in previous five year periods and carried over into the 1986-90 period? What special reasons are there for not including these prior miles as part of the normal carryover?

The total in Table 3-17 shows 35.0 miles, while the narrative on page 3-38 shows 40.0 miles. Which is correct?

36. Page 3-38, Emphasis Species and Deer Habitat Capability.

First, I question the deer population numbers you cite. They appear way out of line in relation to my experience on the Turgas as a field hydrologist on inter-disciplinary planning teams and my work to develop the Southeast Alaska Multi-Resource Model (SAMM). Most importantly, the deer model in SAMM, like many other Southeast deer models have been developed by wildlife biologists from the Forest Service, Forest Research, and the State of Alaska. As such their structure and use has received extensive professional review. I doubt that your results would be acceptable to an external professional review. The large difference between the SEIS estimates and what I would expect out of the SAMM model suggests that your results must be uniformly in error or reflect an assumed ideal conditions over the analysis areas. If so, this is simply not an accurate representation of the potential impacts, nor the capabilities of more sophisticated models that are readily available. The SEIS results best indicate why the simplifying assumptions and approach of using broad analysis areas in the SEIS will yield erroneous if not deceptive, results.

Second, even if the SEIS deer population numbers were consistent with accepted research and prior studies, using carrying capacity over very large analysis areas is not a relevant parameter. This approach masks the more important local or site-specific effects. The number of available deer over areas traditionally used for hunting/subsistence is much smaller than the entire management area or analysis area used in the SEIS. Equally important is where roeding and timber harvest will significantly change local use patterns and the overall availability of deer over time. These parameters, in addition to carrying capacity, are needed to identify site-specific and cumulative impacts. Like the economic viability issues, the cumulative impacts on deer use are important because they are in part a function of the type of timber remaining after the long-term timber sales have been completed. In the past, APC has harvested the best old-growth timber in the areas the Forest Service has made available. In general, these better

timber stands are more important to deer than the lower volume timber stands left uncut. As such, it is important to estimate impacts on deer over the entire life of the contract, as the best old-growth stands will be eliminated from the contract area.

37. Page 3-36, Table 3-18, Analysis Area 2 - Acres of Emphasis Habitat by VCU.

The expected duration and habitat quality within each type of species habitat is left unspecified by the SEIS. For example, we know that forested habitat has many degrees of quality and that logging reduces long-term habitat qualities for species dependent on old growth. The monolithic treatment of habitat in the SEIS helps explain why the measured impact of logging is so underestimated in relation to other studies and research. In short, the gross treatment of habitat is inadequate and should be totally reworked in the SEIS. Also, the relationship of old growth habitat to forested habitat and winter range should be made explicit. Do these habitats overlap? If old-growth conditions are only maintained for another year and one-half (or 1990; see footnotes on Sources), then what is the expected maintenance period for winter range, and does this category increase or decrease with logging?

The overall size of each VCU should be listed in the tables to determine the size and distribution of habitats and its quality. Also, there should be some measure of the dispersion of habitat quality and a comparison with proposed timber harvest plans of the 1981-86 and 1986-90 operating periods. The estimated effects of logging on this distribution of habitat should also be shown for the entire contract area over the life of the contract, i.e. a total-scale layout to meet the volume requirements of contract. Again, computer models are readily available to complete this task.

38. Pages 3-39 and 3-45, Analysis Area 3 - Freshwater-Habitat.

Similar to Analysis Area 2, the relationship between Table 3-19 on pages 3-39 and Table 3-20 on page 3-40 is not clear. First, the narrative should explain how the tables are related and why they are relevant to the SEIS objectives. Also, the RCO-postponed VCUs in Table 3-20 are referenced in a footnote, unlike the RCO-postponed VCUs in Table 3-14. Rather than using footnotes, we suggest these VCUs be in their own category, as in Table 3-21. Why the format changes is totally unclear.

Unlike the other analysis areas (2, 5, 6, and 12), there is no table showing the acres of existing and scheduled timber harvests. Why is this table deleted for Analysis 3. Again, we are not sure of the relevance of this table and its contribution to meeting the SEIS objectives.

39. Pages 3-44 to 3-45, under Emphasis Species and Deer Habitat Capability.

See comment number 37.

40. Page 3-43, Table 3-22.

See comments concerning "Prior EIS Road Miles," number 35. The footnotes are somewhat clarifying but appear to be transposed.

41. Pages 3-45 through 3-49, Analysis Area 5.

The format for Analysis Area 5 is very different from that of other analysis areas (2, 3, 6, and 12) with no explanation in the narrative. For example, Table 3-25, Analysis Area 5 - Previous Harvest by VCU, is included for the first time in the series of tables for an analysis area, yet the other analysis areas also have had harvesting in the past. Also, Table 3-28 is shown for the first time displaying the acres scheduled (for harvest we assume) by each 1986-90 EIS alternative except Alternative A. Why is this special display made, and why is Alternative A deleted? There is no apparent systematic treatment of analysis areas or alternatives.

See our comments above concerning roads and deer habitat for Analysis Area 2. We have the same concerns for Analysis Area 5.

42. Pages 3-50 through 3-56, Analysis Area 6.

Again, another different presentation of tables is provided for Analysis Area 6 with no explanation why. For example, Tables 3-32 and 3-33 are presented for the first time and appear to present the information in greater "detail". While this difference exists, we are not sure of its relevance nor of its contribution to meeting the objectives of the SEIS. The narrative should state why the information is presented and how it helps differentiate the site-specific and cumulative effects between alternatives in the SEIS.

We have the same concerns for the treatment of deer habitat as in other Analysis Areas above.

43. Page 3-53, Table 3-35, Analysis Area-Acres Scheduled by the 1981-86 EIS by Alternative.

As in Analysis Area 5, Table 3-35 is included to show the acres scheduled (for harvest we assume) by each 1986-90 EIS alternative except Alternative A. Why this is displayed and why Alternative A is deleted is unclear. Again, there is no apparent systematic process to the treatment of analysis areas.

44. Page 3-58, Table 3-39, Analysis Area 12 - Timber Harvest Units and Acres Scheduled for Harvest by Operating Period and Table 3-40, Analysis Area 12 - Acres of Existing and Scheduled Timber Harvest in Non-Deferred VCUs.

In Table 3-39, the acres and unit columns are transposed for each operating period, 1976-81, 1981-86 and 1986-90.

In Table 3-40, the Total Harvest Acres should be 20,301 acres, not 20,193. The row totals for VUs 400 and 402 are shown incorrectly.

The relationship between Tables 3-39 and 3-40 is not clear. For example, for VCU 402 (a non-deferred VCU) the sum of acres scheduled for harvest in Table 3-39 is 250 acres, while in Table 3-40 it is shown as 172 acres. Also, in Table 3-40, VUs 419 and 420 are footnoted as partially deferred, yet there is no difference in the number of acres scheduled for harvest in these VUs shown in Tables 3-39 and 3-40. This suggests that the partial deferrals stemming from the court agreement is no different than what the Forest Service scheduled for harvest in the 1986-90 ROD. Is this correct?

45. Page 3-62, Table 3-44, Summary of Proposed High Priority Analysis Areas.

There needs to be a narrative on what this summary is striving to conclude and why it is relevant. For example, why doesn't it summarize the preceding "Information" presented for each Analysis Area, rather than being separate pieces of information.

Also, there is no apparent way to verify the remaining harvest acres for Notices of Intent deferred VUs in the summary table by referring back to the information listed by each individual analysis area. Furthermore, when you go back to the individual analysis areas to verify the remaining harvest acres for the Notices of Intent, non-deferred VUs, it yields close but not consistent answers. For example, based on the information in Table 3-21 for Analysis area 3, there are 6,692 acres remaining in harvest areas—whatever that means — compared to the 6,678 acres shown in the summary Table 3-44. Likewise, the totals for Analysis Area 2 are 949 acres versus 968 acres. While the numbers are close, the discrepancies and the unverifiable numerical information make a systematic check of the numbers impossible. Consequently, the reader must spend more time figuring out why the numbers are presented and how they relate to each other rather than trying to understand why the decisions are made on the relative merits of the alternatives, i.e., the environmental, economic, and social consequences.

After all the Analysis Area information is presented in Chapter 3, why does Table 3-44 rely on alternative J in the 1986-90 EIS to summarize "Remaining Harvest Acres"? Alternative J does not reflect all the decisions in the 1986-90 ROD. For example, on page 4-57, the Analysis Area 3 totals for Alternative J is 1,636.0 acres and for the ROD 1,463.0 acres. Also, is alternative J the basis for the numerical information in Chapter 3 for each Analysis Area? If so, why is information for an alternative chosen at all, and especially an alternative different from actual decisions in the ROD.

46. Page 4-1, under Introduction.

Under Item 1, it is stated that "...Chapter 3 described how much timber is available in VCUs that require no additional NEPA disclosure." Item 2 states that the discussion of issues will include the entire APC contract area, but Item 4 states that data is presented in Chapter 4 is limited to

the analysis areas for further evaluation in Phase II. It is not clear from this discussion whether site-specific and cumulative impacts are to be limited to just the deferred VUs by the NOI or over the entire APC contract area or some other sub-set within the APC contract area. Furthermore, the SEIS reminder to readers that the preferred alternative A, suggests that only the unharvested over in the 1986-90 as Alternative A, suggests that only the unharvested units of the 1981-86 period were carried over and are thus considered for further analysis. In any case, the analysis of cumulative effects must include past, present and future environmental consequences due to timber harvest over the entire contract area, including private inholdings, to be relevant. One of the deficiencies identified in the 1981-86 EIS was that it lacked analysis of site-specific impacts at the local level and that it lacked analysis of cumulative impacts in the broader context. In other words, cumulative impacts are more than a summation of the additional harvest units planned. Cumulative effects must include how additional harvest units add to existing impacts and relate to impacts in the foreseeable future.

It cannot be assumed that previously harvested areas and areas open to harvest under the court settlement agreement are excluded as part of the NEPA environmental analysis since they were "assumed to be exempt." A partial analysis of the contract area would underestimate the cumulative impacts of the proposed action. We believe that in order for the SEIS to be consistent with NEPA, you must evaluate all past logging with the additional logging to be completed in the 1986-90 period plus anticipated effects of future timber harvests to complete the APC long-term timber sale in the year 2011. Existing computer software is operational within the Forest Service to complete this task, i.e., the Logging Systems Transportation Analysis (LSTA) software.

47. Page 4-2, under Need of Phase II.

It is not certain from the narrative or the APC-Forest Service agreement in Appendix C what the 700 MGP means. Is it net sawlog and volume only? In looking at the Appraisal Summary, it is apparent that over 809 MGP has been appraised. The treatment of utility volumes in the long-term contract and in the 1985 APC-Forest Service agreement is useful information in the SEIS. More specifically, why was the administrative decision made to exclude utility volume from the original contractual volume requirements? What proportion of the timber harvest is utility volume? and how does the exclusion of utility volume increase the number of acres needed for harvest?

48. Page 4-5, under Table 4-5, Tongass Land Management Plan Land Classification Acres.

Based on the existing harvested acres shown in Chapter 3 for each analysis area, the outcover figure in Table 4-5 appears to include only Tongass acres. The cut over acreage for private lands would put the impact of harvest on adjacent lands into much better perspective. We recommend the outcover acres be broken down by the categories of private and National Forest ownership.

49. Pages 4-7, Table 4-7, Effects of Land Use on Deer Habitat Capability.

Again, the cumulative effects are constrained to only the additional effects since 1980. Furthermore, it is not certain how the impacts were calculated/estimated. On the surface the impacts appear to be underestimated and are masked by looking at site-specific impacts over large areas. See our comments numbered 36 and 37.

50. Page 4-8, under EIS/Sale Administration Process.

The Life of Sale Plan has never included an analysis of the economic viability of the remaining timber to be harvested. To do so would require a total sale layout of the contract area using logging system transportation Analysis (LSTA) software. Such an analysis would not only shed light on the economic feasibility of future harvests but also the cumulative effects of completing the long-term timber sale on other resources such as water quality. This assumes the outstanding volume requirements will be taken from the remaining timber in the APC contract area. We recommend that an LSTA be conducted for the entire APC contract area showing alternative ways, including the most cost-efficient alternative, to complete the APC contract by 2011 (see comment number 1).

51. Page 4-9, Table 4-8, Summary of Distribution of 1981-86 EIS Planned Acres.

Table 4-8 lists 133 serialized units for a total of 6,376 acres from both the Chatham and Stikine areas. This is over three times the number of serial units and acres shown for the 1981-86 operating period in the narrative on page 4-8. Also, why are the acres per unit not shown for the serialized units in Table 4-8?

We recommend the whole issue of serialized units in relation to the ROD and NOI should be clearly stated in the SEIS. Where do these units exist and what are the site-specific and cumulative effects should they be released to APC for harvest? How are these units being treated in Phase I and Phase II of the SEIS?

52. Pages 4-10, Status of 1981-86 EIS Planned Acres as of January 1, 1986.

For Analysis Area 3, Surtacheen is listed as a carryover area. This is not consistent with the APC-forest Service 1985 agreement in Appendix C. Exhibit A lists Surtacheen (Areas #1 and #2 on Map #3) as not being carried forward in the 1986-90 operating period. Since Surtacheen is shown as available throughout Chapter 4 of the SEIS, why are the other areas such as Catherine Island deleted from the 1986-90 operating period? Both Catherine Island and Surtacheen have been extensively cited as examples of how APC can highgrade the contract area under terms of the existing contract. This is one reason why Title II of the Tongass Timber Reform Act directs the Forest Service to renegotiate the long-term contracts. Furthermore, it is our understanding that the APC-forest Service 1985 agreement was designed, in part, to eliminate these areas (Catherine Island and Surtacheen) in the timber appraisal and prohibit APC from using these areas to lower the

average stumpage rates. For more detail on this practice by APC to pay less than fair market value for their long-term timber, see my attached testimony on H.R. 3556.

53. Page 4-12, Table 4-11, Planned and Laid Out Timber.

Again, for Analysis Area 3, Surtacheen is carried over into the 1986-90 period and treated differently from the other areas deleted by the APC-forest Service 1985 agreement. The SEIS should explain this discrepancy.

54. Pages 4-14 and 4-15, Examples of Changes in Harvest Unit Boundaries.

While the net increase or decrease in harvest unit boundaries and volumes is small, i.e., 0.6 percent, it is not clear how these boundary changes balance out in terms of site-specific environmental consequences. For example, enlarging harvest areas to prevent timber from being isolated along streams has a greater potential consequence, than extending a boundary of a harvest unit along the hillside in most cases. Also, it is not clear how harvest unit changes may be consistent or at odds with the assumed management guidelines and standards for the harvest unit in the EISA. For example, is a harvest unit along a stream increased in order to not isolate timber, but at the expense of streamside buffers assumed to provide shade for streams and protect streambanks? This further shows the need for good monitoring information in the SEIS. Furthermore, this shows the need to explain why a certain protection measure is prescribed and why it is or is not maintained when the unit is actually laid out and harvested. In any case, each harvest unit change should identify how each change affects the standards and guidelines applicable to the area. This information should be summarized and carried forward in the SEIS. Just including a few examples is not sufficient (see our comments numbered 4).

55. Pages 4-16 through 4-30, under Subsistence Use.

The very large analysis areas set up to evaluate environmental trade-offs in the SEIS inhibit the identification of local areas that are traditionally used. Furthermore, the large analysis areas suggest that there are many substitute areas of equal value. We find this type of approach inconsistent with the identification of site-specific impacts.

56. Page 4-32, under Description of GIS Data Base and Deer Habitat Capability Model.

It appears the best-case scenario was used to determine deer habitat capability through the use of very broad and simplifying assumptions. For example, the SEIS deer model uniformly assumes low elevations and southerly aspects characterize the forested habitat over the contract area. Also, wolves are indeed present on South Kuiu (Analysis Area #12), violating one of your key assumptions about predation. Also, what about predation by brown bears?

The deer habitat analysis appears to substantially underestimate the impact to deer, especially over the long-run. Before this information goes forward in the SEIS, a professional review of the SEIS deer model and assumptions should be made by outside biologists to gain recommendations on how to achieve credible results.

57. Pages 4-38, under January 4, 1985 Agreement.

In Item 2 it is stated that the 70 percent rule is waived for the 1986-90 operating period through the January 4, 1985 agreement. This directly conflicts with the actual agreement, reproduced in Appendix C, which states the requirement was reduced from 70 percent to 29 percent for the 1981-86 period only. Such an erroneous assumption could have major ramifications on the decisions stemming from the SEIS. If the 70 percent rule applies for the 1986-90 operating period but is not being complied with, then these other alternative sources should be considered in the SEIS. In any case, the 70 percent rule should be carefully explained as well as APC performance since 1980.

58. Pages 4-46 through 4-106, under Analysis Area Discussions.

Again, the SEIS process excludes areas that have already been harvested for further analysis. These exclusions will not result in a underestimation of cumulative effects. We believe this is inconsistent with the objectives of the court agreement and the need for the SEIS.

Past timber harvest activities are only used to determine what portion of the remaining operable timber remains. Much of this operable timber, however, is uneconomic. Both the definitions for commercial forest lands and operable timber used in the Tongass Land Management Plan exclude explicit economic criteria. Furthermore, much of the remaining timber within the contract area has been isolated behind the existing harvest units. The reason is that the maximum yarding distance used to define the TMP timber base was about 2,600 feet, while the predominant logging system used in the contract area is high-lead, with an average yarding distance of 800 to 1000 feet. Thus, the timber behind many of the backlines of existing harvest units is economically isolated. Should the timber be harvested, it would have to be accessed by very expensive roads built high on the mountaintops, or yarded by very expensive yarding systems such as helicopters, or yarded through the harvested unit destroying the regeneration and undergrowth. Therefore, the amount of timber remaining is deceptive and underestimates the economic impacts of current harvesting policies. For example, every time timber is isolated by only using the high-lead system, additional pressure is put on other lower elevation areas as substitute volume. This, in turn, increases other resource conflicts with timber such as deer winter range and fisheries protection.

quality of timber across the analysis areas. Again, equal treatment over all harvest areas does not recognize that there are large differences in the economic and environmental values of high- and low-volume timber stands.

In Table 4-53, Acres of Emphasis Species Habitat etc., why is the RCO deleted from the alternatives listed?

For the perspective view illustrations, it would be helpful to include a discussion on the three-dimensional effects shown. For example are elevations in perspective and not distorted? In any case, the perspective view is an excellent addition to the plan view maps.

Pages 4-107 and 4-108, Table 4-73, 1986-90 EIS Roads and Timber Availability for Further Consideration, and Table 4-74 Volume of Timber, etc.

While Table 4-73 lists a separate average volume per acre for each analysis area and by each 1986-90 EIS alternative in the RCO, Table 4-74 uses an average value of 29.1 mbf/acre for all analysis areas and EIS alternatives. Why does one part of the SEIS differentiate between analysis areas by this important variable while the summary recommending areas for further analysis overlooks this important variable?

Appendix F, No Action Alternative.

By enlarging the SEIS process to include such a large area defeats the purpose of a no-action alternative for given areas. The no-action alternative should also be included with the other "alternatives" considered in the SEIS and not part of the appendix materials.

I want to thank you for the opportunity to participate in the SEIS review. I would also like to be put on your mailing list for future documents. I never received notice of this document in the mail and but was able to get a copy from the regional office. I believe I stated our desire to be put on your mailing list then, and I'm taking the opportunity to reiterate our request.

If there are any questions, please contact me at 463-5333 in Juneau or at (207) 842-3400 in Washington, D.C.

Sincerely,

Joseph R. Mohrke

Joseph R. Mohrke
Director

cc: James W. Pierce, SEIS Team, Juneau, Alaska



THE WILDERNESS SOCIETY

STATEMENT OF JOSEPH R. MEHRKENS, THE WILDERNESS SOCIETY, ON H.R. 3556, THE ALASKA TIMBER CONTRACTS MODIFICATION ACT, BEFORE THE ENERGY AND ENVIRONMENT SUBCOMMITTEE, HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS, DECEMBER 10, 1987.

Members of the Committee, I am Joseph Mehrkens, economist with The Wilderness Society. I appreciate the opportunity to appear on behalf of The Society's 200,000 members concerning H.R. 3556, The Alaska Timber Contracts Modification Act. I am testifying in support of this bill which would terminate the 50-year timber sale contracts in southeast Alaska.

Prior to joining The Wilderness Society in October, I was employed by the U.S. Forest Service for 17 years. Over the past 12 years I worked in Alaska. As forest hydrologist on the Stikine Area of the Tongass, I was part of an interdisciplinary team responsible for the field layout of one of the 50-year timber sale contracts. Later as regional economist for the Alaska Region, I was responsible for analyzing the economic impacts of the Tongass timber program, including those associated with the long-term timber sale contracts.

My work in the field and in the regional office provides me with an understanding of the resource implications of the long-term timber sale contracts and their economic impacts in southeast Alaska.

Background on the Long-term Contracts. At present the Forest Service sells timber on the Tongass in two ways. First, the agency maintains two long-term, 50-year timber sale contracts established approximately 30 years ago. Second, the agency employs conventional short-term contracts. Under the long-term contracts, the agency will release 13.3 billion board feet of Tongass timber for logging by the first decade of 21st century when the contracts expire. The long-term contracts dominate Tongass timber sales, accounting for at least two-thirds of the Tongass timber volume now under contract. They are unique to the National Forest System because of their magnitude, duration, and provisions that favor the holders.

The long-term contracts are the result of years of effort by the Forest Service. Starting in the 1920s, the agency sought to establish a timber industry in southeast Alaska. This was a very difficult objective to achieve because the region's remoteness and a predominance of low value timber combine to place the timber industry in this area at a competitive disadvantage with industry in British Columbia and the Pacific Northwest. By the late 1950s, however, the Forest Service was eventually able to induce pulp companies to build facilities in southeast Alaska for export markets. The agency had to guarantee timber supplies for at least 50 years in order to secure the operation of pulp mills and the construction of a logging road network. Four long-term contracts were sold; only two exist today. They are held by the Alaska Pulp Corporation and the Louisiana-Pacific Corporation.

Based on my experience in Alaska, I conclude that the long-term contracts are obsolete. In fact, their continuation will inhibit development of a balanced and stable regional economy, including a more viable timber industry.

The original intent of the long-term contracts was to make use of old-growth timber reserves and, in turn, to provide additional employment opportunities for the region's residents.

Instead, the following consequences are being realized:

- o Tongass timber is being "high-graded" under the long-term contracts and sold below its fair market value.
- o The long-term contract operators have an unfair competitive advantage within the southeast Alaska timber industry.
- o Employment opportunities stemming from the long-term contracts are declining.

Each of these factors is examined in more detail below.

Tongass Timber Sold At Less Than Fair Market Value. Under the long-term contracts, the Forest Service sells Tongass timber below its fair market value -- commonly regarded as the price determined in a competitive market. This occurs because of the timber appraisal process used to set the price the government receives for the timber and the ability of the long-term operators to take or reject areas from the timber estate made available under provisions of the contracts.

Within each long-term contract, the Forest Service sets the price for timber at the beginning of five-year operating periods. Unlike a series of short-term sales, the 50-year contract prices do not reflect changing market conditions. The result has been

windfall profits to the long-term operators, especially during times of improving markets. Furthermore, if markets substantially deteriorate within a five-year period, the long-term operators -- under specific guidelines in the contracts -- can have the prices "re-determined" and the lower rates applied retroactively. Table I charts this occurrence.

In addition, the long-term operators are often successful in reducing initial prices through negotiations with the Forest Service. These negotiations center around specific items in the appraisals, such as cost allowances, profit margins for road building, species distributions, road construction standards, timber volumes, and more.

Recent contract negotiations now allow for price increases if markets improve. But they also provide for a broader application of road construction credits against the amount owed the government for future timber. It is therefore unlikely that future prices will exceed minimum prices set administratively -- a few dollars per thousand board feet -- or attain fair market value for the timber.

Another important reason that the long-term contract operators do not pay fair market value stems directly from their ability to take or defer timber made available to them. Under the contract provisions, the operators can "high grade" their selections -- that is, choose the more valuable stands for logging -- and use lower value unlogged timber to hold down the price paid to the Forest Service for timber actually cut.

It works like this. Within each five-year period, the Forest Service identifies the areas to be logged. The agency offers both better and lesser quality trees from the land reserved for the long-term contract holders. The price set for the timber reflects the average value of the trees made available. By only cutting the higher value timber, the actual costs to the long-term operators are less than the cost allowances in the Forest Service appraisal. Likewise the actual price the operators get for the timber on the market is greater than that shown in the appraisal process since only the higher quality timber is logged. Because actual costs are less than the average appraisal costs and actual prices are greater than the average appraisal value, the timber that is logged is sold at less than fair market value and Forest Service timber receipts are too low.

The Alaska Pulp Corporation has an additional advantage. This company has been allowed to average in all of the lower value timber not taken since 1971 in addition to the lower value timber in the latest five-year operating period. The Forest Service rationale for this decision was that Alaska Pulp would eventually have to log the deferred lower quality material under terms of the

Table 1: Recent Original and Redetermined Rates for Timber Under Long-Term Contracts in Southeast Alaska.

Company and Species	Original Rates	Redetermined Rates
	dollars per thousand board feet	
Alaska Pulp Corporation:	1981-86	Retroactive 7/1/82
Spruce	215.98	2.26
Hemlock	1.36	1.36
Alaska Cedar	1,058.27	1.22
Louisiana-Pacific Corporation:	1979-84	Retroactive 12/1/81
Spruce	114.96	2.87
Hemlock	30.97	1.97
Alaska Cedar	182.34	13.42
Red Cedar	86.57	1.62

Source: U.S. Department of Agriculture, Forest Service, 1983.

long-term contracts. This is very unlikely in the absence of some unprecedented market improvement.

The Forest Service, in particular, does not believe this material will be logged. According to its 1985 agreement with the Alaska Pulp Corporation, the agency is not requiring the company to take all the timber deferred from past timber layouts and appraisals. Furthermore, the agreement does not require logging of all the timber released in future five-year operating plans. In addition, the agency did not adjust prices upward to offset past windfalls to the industry.

An unfortunate consequence is that more pressure is being placed on the remaining timber base to find substitute timber. Negative impacts will occur to other resources, such as low elevation, quality wildlife habitat where soils are often productive and capable of supporting higher value timber.

Unfair Competitive Advantages of the Long-Term Contracts. Since the early 1970s, prices paid for timber under the long-term contracts have averaged about \$40 per thousand board feet less than for similar timber sold under short-term contracts. There are several reasons for this inequity.

First, the long-term stumpage prices set in the Forest Service appraisals are not subject to competitive bidding. In contrast, short-term operators must accept appraised prices as the minimum bid price, which is often increased through competitive bidding.

Second, as explained earlier, long-term operators benefit from the ability to choose among the timber sites made available to them. Short-term contract operators, on the other hand, have to cut all of their timber. If not, they are in breach of contract and liable for damages.

Third, the Forest Service does not always enforce the same environmental protection standards under the long-term and short-term contracts. In at least one case, the Forest Service has documented an on-the-ground example of this double standard. When implementing the Timber Sale Program Information and Reporting System (TSPIRS) for the Ketchikan Area of the Tongass, the agency evaluated logging completed on long-term and short-term sale areas. In the case of fisheries protection, the agency normally prescribes that sufficient trees remain along streams to protect fish rearing habitat. However, some riparian areas scheduled for logging under Louisiana-Pacific's long-term contract were the result of previous and less stringent contract provisions. The company was allowed to remove more streamside timber than Forest Service protection standards prescribe.

Finally, the long-term contracts have facilitated monopolistic conditions in southeast Alaska's timber industry. The long-term operators control approximately 79 percent of the pulp and sawmill capacity in the region. Consolidation of mill capacity began in the 1960s and was associated with anti-competitive practices to control independent loggers and to artificially lower the price of Tongass timber. These practices were surfaced by a group of smaller timber operators who were forced out of business but who were ultimately successful in collecting damages through the courts.

The federal government has not fared as well. Evidence in the Reid Brothers case shows that the two long-term contract holders used subterfuge in their recorded business transactions with the intent to prevent the Forest Service from increasing timber prices to fair market value. The Forest Service has estimated the losses in federal timber receipts due to this subterfuge and other antitrust practices were \$60 to \$80 million dollars between the 1950s and 1975. The amount ultimately collected in proceedings underway will probably be far less -- \$25 million dollars at best -- and may amount to nothing at all. Presently, the Forest Service is using its "expected" receipts from underpriced timber acquired by the long-term contract holders many years ago to offset the cost of alleged counter claims by the contract holders.

Shrinking Employment Opportunities. Employment related to the long-term contracts is far less now than contemplated when the contracts were sold. Prior to the long-term contracts, timber-related employment represented seven percent of total employment in southeast Alaska. By the mid 1970s, well after the long-term contracts were put in place, the timber industry's share of all employment in southeast Alaska had doubled to 14 percent. Since then, however, the share of jobs related to the long-term contracts has dropped below the initial level of 10 years ago. It is now approximately five percent of total employment in southeast Alaska.

This decline is due to the diversification of the economy, growth in state government in Juneau (located in Southeast), and erosion of the southeast Alaska pulp and cement export markets. Based on Forest Service information, less than half of the timber-related jobs in southeast Alaska were dependent on the entire Tongass timber program in 1986. Even fewer jobs stem from the long-term contracts.

Conclusions. The Wilderness Society recommends the termination of the 50-year timber sale contracts in southeast Alaska. The supply needs of the pulp companies should be incorporated into the management plan for the Tongass, now being revised, and offered through a series of short-term sales. Accompanying each short-term sale contract should be a site-

specific Environmental Impact Statement to identify adverse impacts to other resources and to develop mitigation measures.

Passage of H.R. 3556 will place all segments of the timber industry in southeast Alaska on more even footing and facilitate more balanced planning and management on the Tongass. If cancellation of the contract results in compensation to the holders, the federal government's cost of a "buyout" will be far less than its cost of operating the contracts. These long-term contracts after all, contribute significantly to the \$50 million a year federal taxpayer loss on the Tongass. Furthermore, the resource of this unique and valuable national forest would be conserved for all forest dependent industries -- including tourism, commercial fisheries and timber -- based on their highest and best use.

On the other hand, continuing the long-term contracts will deplete the most valuable available timber that subsidizes a declining pulp industry. We must act now, otherwise the finest timber resources on the forest will be gone before the contracts expire. The pulp mills will then close leaving the remaining resource base substantially diminished to support economically viable tourism, commercial fisheries, and timber industries.



THE WILDERNESS SOCIETY

STATEMENT OF JOSEPH R. MEHRKENS, THE WILDERNESS SOCIETY, ON THE TONGASS TIMBER REFORM ACT, S. 708, BEFORE THE SUBCOMMITTEE ON PUBLIC LANDS, NATIONAL PARKS, AND FORESTS, COMMITTEE ON ENERGY AND NATURAL RESOURCES, NOVEMBER 5, 1987.

Members of the Committee, I am Joseph Mehrkens, economist with The Wilderness Society. I appreciate the opportunity to appear before you on behalf of The Society's 190,000 members. My testimony supports S. 708, the Tongass Timber Reform Act.

Prior to joining The Wilderness Society this October, I was employed for 17 years by the U.S. Forest Service. Over the past 12 years, I worked in Alaska, first as a forest hydrologist on the Stikine Area of the Tongass National Forest and then as regional economist for the Alaska Region Office in Juneau. My primary responsibility as regional economist was to organize information and help prepare congressional reports required by the Alaska National Interest Lands Conservation Act (ANILCA). These reports describe the supply and demand situation for timber in southeast Alaska and the status of resource management on the Tongass.

Based on my experiences in the Tongass, I must conclude that Section 705 of ANILCA has failed. The primary goals of the Section are to make "economically marginal" lands more productive and to insure a continued supply of logs to "dependent industry." Instead:

- o The permanent appropriation mandated in Section 705 has resulted in no measurable increase in the use of marginal lands.
- o Expenditures have been made to access more valuable timber, support an accelerated road construction program, and expand administrative facilities -- some of which now sit idle.
- o While real dollar outlays for the timber program have nearly doubled since passage of ANILCA in 1980, Tongass timber harvests are down approximately 50 percent from pre-ANILCA levels. Employment dependent on timber from the Tongass has fallen 33 percent below average levels in the 1970s.

As a result:

- o Based on Forest Service data, The Wilderness Society found that taxpayer losses from the Tongass timber program were 93 cents on the dollar in 1984, 98 cents in 1985, and 99 cents in 1986.
- o As for the future, the Forest Service's most recent Tongass report to Congress -- required by Section 706(b) and which I helped prepare -- estimates overall losses to the government and industry will range from \$894 million to \$2.8 billion over the next 50 years, depending on market conditions.

In addition, mandated timber supplies and permanent appropriations set out in Section 705 dominate Forest Service management decisions on the Tongass. This means that opportunities on the forest for non-timber commercial interests and individual users are needlessly limited or substantially reduced.

The remainder of my testimony explains why the Tongass timber program as mandated in ANILCA has failed and why it will continue to fail.

Failure of the Tongass Timber Supply Program

The Tongass is unique among the 156 units that comprise the National Forest System. It is the only forest with a mandated timber supply level, a permanent appropriation to support the timber program, and an exemption from the requirements of the National Forest Management Act of 1976 to identify and then remove unsuitable lands from the timber base. Even given these special considerations, the Tongass timber program has proven unsuccessful.

Three principal factors leading to this failure are readily identified. First, the southeast Alaska timber industry represents a classic case of a residual supplier. It is "last in, first out" due mainly to high production costs. Second, the site-specific analysis used to determine the dollar amounts needed to fund the mandated timber supply was inadequate. Finally, guidelines governing the permanent appropriation are vague, allowing the Forest Service to misuse its discretionary authority. These factors are detailed below.

Southeast Timber Industry -- A Residual Supplier. For some time, Forest Service economists have contended that demand for southeast Alaska's timber in Pacific Rim markets determines the health and well-being of the area's timber industry. The Forest Service has no control over these market conditions. More important, even during the best of markets, southeast Alaska's production costs have proved to be higher than those of competitors.

The Forest Service has studied logging costs on the Tongass and on lands held by competing areas. The results of the studies show that British Columbia, for example, has higher quality timber and more accessible terrain than the Tongass. This also holds true in the Pacific Northwest and for other competitors.

Higher production costs in southeast Alaska mean that the timber industry is toward the end of the line of suppliers who enjoy improving markets. Southeast is also near the beginning of the line when markets decline and suppliers drop out. While Forest Service investments in Tongass timber may enhance favorable market conditions, they cannot offset significantly declining market factors.

Inadequate Information and Analysis. The amount of the permanent appropriation set in Section 705 -- "at least \$40 million annually" -- is based on an investment strategy outlined in the Tongass Land Management Plan of 1979. However, the cost estimates arrived at to support ANILCA's timber supply mandate reflect two main analytical flaws: they overstate the amount of commercial forest land on the forest and they ignore the diversity of forest types and physical conditions on the Tongass.

Indeed, the current definition of "commercial" forest lands is a misnomer. Such areas are described as containing at least a minimum timber growth-rate, whether or not such areas can be logged by conventional -- and thus more cost-effective -- methods. The definition simply does not incorporate anticipated costs nor timber values and thus overestimates commercially viable lands. As to diversity, only a small area of the Tongass, Red Bay, was sampled to estimate the level of the Tongass Timber Supply Fund. The results were extrapolated across the entire Tongass timber base, some 1.7 million acres. The Red Bay area certainly does not represent the diverse conditions found on the Tongass. Specifically, the area contains higher than average timber values and is relatively easy to road.

Additional complications arise from the management plan's use of timber appraisals in determining the cost estimates. The timber appraisal information is based on the assumption that competition for timber contracts exists on the Tongass. The courts have found otherwise. This lack of competition leads to an undervaluation of timber and an overstatement of the need for certain investments, such as roads built at taxpayer expense.

Furthermore, the cost estimates were derived using Forest Service budgetary information. Such data are based on amounts budgeted for the timber program rather than on actual expenses. A considerable gap often exists between the two figures. Consequently, the General Accounting Office has repeatedly criticized the Forest Service for using budgetary information in accounting for costs.

Lack of Accountability. The Forest Service has misused its discretionary authority in managing the Tongass Timber Supply Fund. I attribute this situation to a lack of accountability, facilitated by inadequate ties between the forest plan and on-the-ground management. As it stands, management direction under the Tongass Land Management Plan lacks site specificity to the degree that it has little or no influence on expenditures to support the forest's timber program.

To the point, mid-level planning initially envisioned by the architects of the Tongass Land Management Plan was never completed. Instead, the forest supervisors responsible for the three distinct areas of the Tongass have implemented separate management directions. This lack of consistency across the forest, coupled with the permanent appropriation in ANILCA, has fostered a "blank check" syndrome.

This "blank check" syndrome is most apparent in the accelerated road building program on the Tongass. Starting with the Tongass Land Management Plan in 1979, the Forest Service identified approximately 1.6 million acres as "operable" for timber production. These acres were made available for logging, by placing them in the timber base, to achieve an average annual sale level of 450 million board feet. Thirteen percent of this acreage had already been logged by 1979; 87 percent was to be logged during the remaining 50 to 70 years of the first harvest rotation. However, ANILCA's Section 705, in establishing the Tongass Timber Supply Fund, enabled the Forest Service to build roads through 40 to 50 percent of these unroaded drainages in just six years. This feat was accomplished during unprecedented depressed markets.

Unfortunately, the only consistent criterion used to determine investments in the timber program is the need to justify Forest Service expenditures from the supply fund. As shown through accelerated road building, expenditures for the timber program bear little relation to market conditions. For example, the allowable sale quantity of 4.5 billion board feet (bbf) per decade in the Tongass Land Management Plan represents a ceiling. On the other hand, the Forest Service has represented ANILCA's timber "supply" goal of 4.5 bbf per decade first as a floor, then as a mandate, and currently as a "soft" supply goal. These changes parallel declining timber markets for the southeast Alaskan timber industry. Yet, despite market realities, the Forest Service continued laying out timber sales and building roads.

Future Timber Management Issues for Southeast Alaska

Looking ahead, I see major problems besetting the Tongass timber program. The most significant is a lessening of timber quality. Prior to ANILCA, the Forest Service informed Congress that timber quality was declining and that historic levels of

harvest could be accomplished only with "added investments" similar to those envisioned by Section 705 in its mandate to make marginal lands more productive. At that time, low volume stands comprised an average of 10 percent of timber harvests. Through the Tongass Timber Supply Fund, this portion was to be boosted to 26 percent. Actual harvests since passage of ANILCA, however, have incorporated nearly the same amounts of low volume timber as before, ranging from 10 to 12 percent. More significant is the projected logging of low volume material during the next 40 years. Over that period, the average use of low volume timber will have to be 42 percent, or four times the historic rate.

Closely related is the question surrounding the future availability of old-growth Sitka spruce. High quality old-growth Sitka spruce has underwritten the southeast Alaska timber industry, accounting for about 26 percent of the total harvest since 1970. Yet, even during periods of high market demand and employment -- such as 1977 through 1980 -- the Forest Service lost money on Tongass timber sales. Without a large volume of old-growth Sitka spruce, the average value of the timber harvested will fall further below the cost of logging and processing the timber. Unfortunately, recent Forest Service timber inventories show that old-growth Sitka spruce now comprises only 12 to 14 percent of the total timber volume. This suggests the Forest Service has allowed logging of this essentially nonrenewable forest type at twice the rate it occurs.

Finally, I turn to currently improving timber market conditions, which the Forest Service and the timber industry have emphasized. Markets have indeed been rising from the low point of the early 1980s, primarily due to factors affecting short-term market cycles. This upturn is temporary and will probably last for only 18 months.

Most important, long-term timber supply prospects for southeast Alaska remain unchanged. For dissolving pulp, most experts forecast a future and lasting decline in overall demand as Southeast mills compete against suppliers with advanced technology and lower logging costs. For southeast Alaska's sawmills, the spruce lumber market should remain strong, as long as enough spruce exists to offset the much less valuable hemlock.

Conclusion

Section 705 of ANILCA is inconsistent with sound resource management on the Tongass and the realities of southeast Alaska as a timber supplier in world markets. If the current situation persists, the Forest Service -- lacking accountability -- will continue spending funds to prepare unwanted timber sales, accelerate roading, and maintain its own infrastructure with little regard for timber demand. Furthermore, I suggest that Section 705 and management practices stemming from it will crush hopes that balanced management solutions can result from a new plan.

Passage of S.708 will resolve immediate problems identified in my testimony.

The Wilderness Society is certainly willing to help explore alternatives to current management on the Tongass. Thank you.

#7

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October 24, 1988

USDA Forest Service
Attention: SEIS
P.O. Box 21628
Juneau, Alaska 99802-1628

Dear SEIS Preparer:

Thank you very much for the opportunity to comment on the draft Phase I Supplement. As you probably know, Vance Sanders and I represent the plaintiffs in *Hutton v. Barton*, No. J88-023 Civil, a case in which people who depend on the subsistence resources of the Hoonah area are challenging the Forest Service's failure to declare that operations under the 1986-90 APC Operating Plan may significantly restrict Hoonah-area subsistence. Had the Forest Service made such a declaration, a hearing would have been held in Hoonah and the subsistence issues which are now in litigation might have been adequately addressed at that time.

The Supplemental EIS is of particular concern to our clients because many of the proposed alternatives involve increases in the amount of logging and roadbuilding which would take place near Hoonah. We are pleased to see that the Forest Service will be making a site-specific analysis of projected impacts on the areas near Hoonah, and trust that this analysis will focus on subsistence as well as on purely environmental impacts. (We will reserve comment on the rather abstract "deer harvest model" until we see how it is employed in the site-specific analysis.) However, it is already possible to see at least two flaws in the Supplemental EIS, both of which can probably be corrected in the final document.

First, the draft does not analyze the impacts on subsistence of any logging and roadbuilding which will take place after 1990. Such logging and roadbuilding is not only foreseeable but inevitable. Operations under the 1981-86 and 1986-90 Plans are only part of a coordinated logging program which needs to be assessed as a whole. The Forest Service explicitly refused to take post-1990 logging into account in its 1986-90 subsistence evaluation. The same choice here would perpetuate the problem by understating the degree to which short-term logging operations will contribute to a long-term detrimental effect on subsistence.

Second, and probably more important, there is no hint in the draft that the Forest Service is going to change its yes-or-no, "will-or-won't" approach to when a possible restriction on subsistence triggers the notice and hearing procedures of Title VIII of ANILCA. As people with a scientific background, you know better than we do that predictions about the effects of timber development always involve an element of doubt. Where there is genuine doubt about whether or not these effects would be substantial, Congress intended notices to be sent out and hearings to be held. We

urge you to abandon the approach the Forest Service has taken in the past and give the benefit of the doubt to subsistence.

Subsistence hearings in Hoonah would enable the Forest Service to hear a full range of community sentiment and explain, far more clearly than it has done to this point, why development in a particular area may be necessary and what steps will be taken to minimize its effect on subsistence. Our clients believe that a fair, site-specific analysis of the proposals' impact on subsistence in the Hoonah area will lead the Forest Service to hold the hearings ANILCA requires. We hope that the changes we have suggested in your approach will improve the subsistence evaluation you are about to make.

Thank you, again, for the opportunity to comment on the first phase of the Supplemental EIS.

Sincerely,

ALASKA LEGAL SERVICES CORPORATION

Mark Regan
Staff Attorney

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IID 18

IID 19



United States Department of the Interior

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Mr. James W. Pierce, SEIS Team Leader
USDA Forest Service
Alaska Region
Federal Building
P.O. Box 21628
Juneau, Alaska 99802-1628

Dear Mr. Pierce:

We have reviewed the Phase I Draft Supplement to the Environmental Impact Statements for 1981-86 and 1986-90 Operating Periods for the Alaska Pulp Corporation Long-Term Timber Sale Contract (Supplement). We offer the following comments for your consideration.

As acknowledged in this document, we believe that development of new log transfer facilities, which would be addressed in later Phase II documents, would require additional in-depth analysis of possible alternatives and their effects. The database relating to nearshore waters and estuarine environments in the Phase I draft is insufficient for future site-specific evaluations.

Page 24, Chapter 2 and Appendix G, Log Transfer Facility Alternatives: The draft Supplement states that each alternative log transfer facility is evaluated against the criteria set forth in the Alaska Timber Task Force Log Transfer Facility Guidelines (Guidelines) in Appendix G. We agree that these criteria are appropriate for your evaluation of alternatives; however, we suggest that the discussion sections for each criteria of the Guidelines be included in Appendix G.

The evaluation of alternative log transfer facilities in accordance with the Guidelines is inadequate and incomplete, particularly for log transfer facilities located in the Chatham area. For example, only 7 of the 28 guidelines are evaluated for the Sitikah Bay East log transfer facility. Furthermore, it is not possible to determine if the Guidelines were applied consistently to bald eagle nest trees, sensitive habitats, bark dispersal, and site productivity. The Chatham area evaluation of these elements should be comparable with those from the Sitikah area.

New information regarding the Timber Task Force Guidelines on log bundle entry speed is also available in Relationship between Bark Loss and Log Transfer Method (U.S. Forest Service, Admin. Doc. 137) and should be used in the analysis of project effects. The document evaluates the effects of log bundle entry speed to bark loss and supplements the Timber Task Force log bundle entry speed criteria.

Page 33, Chapter 2, Freshwater-Whitstone Analysis Area: It is our understanding that the Forest Service is in the process of evaluating a new log transfer facility at False Bay in the Freshwater-Whitstone Analysis Area. The Alaska Pulp Corporation has completed an Environmental Assessment for the proposed project and has applied for a Department of the Army permit to construct the facility. This proposed log transfer facility would significantly affect the transportation options within the analysis area and should be included in the evaluation.

Chapter 4, Environmental Consequences: New Information is available that indicates that the forest road system constructed in the Hoonah area (Analysis Areas 2 and 3) has significantly increased the harvest of brown bear, an emphasis species in the draft Supplement. We strongly suggest that the document evaluate the cumulative effects of new logging roads on brown bear populations and hunter harvest patterns in this area.

Thank you for the opportunity to comment on the draft Supplement.

Sincerely,

Paul D. Gates
Regional Environmental Officer

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STATE OF ALASKA

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October 24, 1988

Mr. Michael A. Barton
Regional Forester
Alaska Region
P.O. Box 21628
Juneau, AK 99802-1628

Dear Mr. Barton:

SUBJECT: Draft Supplements to the Environmental Impact Statements
of the 1981-86 and 1986-90 Operating Periods.

State resource agencies have completed independent departmental reviews of the Draft Supplement to the Environmental Impact Statement of the 1981-86 and 1986-90 Operating Periods (DSEIS). The Phase I DSEIS concludes that consideration of additional harvest from Analysis Areas beyond the scope of the Phase I document will be presented in a Phase II document. The State wishes to consider the Supplemental Plan in its entirety, and therefore will reserve formal comment on this proposal until such time as both documents are available.

Enclosed for your information are the preliminary comments submitted by the Department of Natural Resources and the Department of Fish and Game. Please consider these informal comments, subject to revision based on the states consolidated review of the completed DSEIS package.

Sincerely,

Diane Meyer

Diane Meyer
Project Review Coordinator

Inclosures

cc: Jim Pierce, Forest Service
Rick Reed, DFG, Juneau
Jim McAllister, DNR, Juneau
Craig Lindh, DGC, Juneau
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* STATE OF ALASKA HAS RESERVED FORMAL COMMENTS
UNTIL BOTH PHASE I AND PHASE II DOCUMENTS WOULD
BE AVAILABLE.

MEMORANDUM State of Alaska

to Diane Flaver DATE October 14, 1988

Project Coordinator
Division of Governmental Coordination
Office of Management and Budget
Juneau

FROM Don Cornelius, DC
Area Habitat Biologist
Department of Fish and Game
Petersburg

SUBJECT Phase I of ALP 81-86
and 86-90 Draft
Supplemental EIS
Review

The Department of Fish and Game has completed a NEPA review of the Draft Phase I of the Supplemental EIS for the 1981-1986 and 1986-1990 Operating Period of the APC Corporation Long-Term Timber Sale Contract. The completed document is well written, and laid out to make it more readable. It is obvious a great deal of effort has been expended to meet a very tight Court mandated time schedule.

During the course of our review we have identified some portions of the document which we feel need further elaboration or correction. Thus, we would like to offer the Forest Service a number of comments which should help strengthen the final product and hopefully help guide the Forest Service in determining the management direction for the sale area.

We have divided our comments into general and page specific categories. These represent a compilation of comments received from our Game, Subsistence, Commercial Fisheries, Sport Fish, FRED and Habitat Divisions. Our comments are as follows:

General Comments

1. Based on our reading of Mr. Barton's letter of intent of 9/30/87, we expected this Phase I document to (a.) make a thorough presentation of subsistence data for communities affected by logging in the study area and (b.) evaluate the effect of different logging scenarios on the subsistence use of these communities and make 810 determinations. The Phase I DEIS does not accomplish these objectives instead deferring the determination to Phase II. To achieve these goals in Phase II, we feel the Forest Service needs to expand upon the information which is presented in the document. In order to analyze the effects of different management options on subsistence, the final EIS needs answer a number of questions. These include but are not limited to the following:

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- a. What subsistence harvests are likely to be affected by different cutting plans in each VCU for each of the seven identified affected communities.
- b. How do the critical habitats for subsistence species intersect with subsistence use areas and proposed timber harvest units?
- c. What acreage of intensively used subsistence areas are scheduled for logging under different scenarios?
- d. What habitat types (old growth, riparian, alpine, etc.) used for subsistence are affected by different management alternatives?
- e. What changes in subsistence can be expected from extension of logging roads?
- f. What are the likely effects on overall subsistence harvest levels and composition of subsistence harvest of different management alternatives? These include potential season and bag limit restrictions.
- g. What is the effect on subsistence in affected communities of the establishment of long term logging camps? Is harvest competition an important factor?
- h. Given deer population sensitivity to habitat change and climatic variation, what is the likely long term effect on deer harvest of different management alternatives?
- i. How do expected snow depth, distance from a subsistence community, presence of roads, community economy, community ethnicity, community population structure, and other factors influence the effects of management alternatives?
- j. What management alternatives are most likely to result in significant restrictions to subsistence harvesting?
- k. What changes in species populations will affect communities ability to successfully harvest/utilize those populations?

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We feel these questions need to be answered to adequately evaluate the impact of management alternatives on subsistence in order to make 810 evaluations and determinations. The use of maps showing subsistence use by species for each community would provide a good graphic representation of this issue in the final EIS.

We suggest that the planning team review a) the Alaska Habitat Management Guide for the components of an adequate evaluation and determination and b) the procedure followed by the Alaska Boards of Fisheries and Game in making customary and traditional determinations. The document should state what data it chooses to consider and show how it reaches its conclusions with respect to 810 and subsistence. The retention of a subsistence specialist to assist in the completion of the final EIS may be advantageous.

2. The disproportionate harvest of high-volume stands on the Tongass is a long-standing concern raised by the State and other parties in comments on the draft and final 1986-90 FEIS. However, there was no discussion of timber harvest activities by volume class in the supplement. The SEIS should strengthen the analysis and discussion of this issue.

We noted on page 2-13 that the alternative of harvesting timber volume classes in direct proportion to their occurrence was dismissed because "(this) would not meet any objectives, would not necessarily reduce environmental impacts, and would (not) result in logical timber harvest units and roads". We believe these claims are unsupported by the presentation of data or any analysis. The Tongass Land Management Plan assumes many roads and units will eventually be built/harvested in lower-volume stands. We see no justification for the statement that the proposal would necessarily require "illogical" roads and harvest units.

The main objective of this proposed alternative was to preserve natural forest diversity in terms of forest type and volume class. Secondly, it would protect wildlife and fish populations dependent on higher-volume class stands which have been, and continue to be, disproportionately harvested. The alternative would appear to satisfactorily meet those objectives. If the alternative cannot be considered for other reasons, those reasons need to be clearly spelled out and defended.

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3. The effects of roading on subsistence use of deer, and on population levels of brown bear have been raised by the State and other publics, and should be addressed in this supplement. Actions taken by the Game Board to restrict harvest opportunities for deer and emergency closures for brown bear because of increased access have direct bearing on the subsistence analysis and should be considered.

4. A long term cumulative effects analysis is essential in the final SEIS. The supplement should build upon the cumulative effects analysis (through 100 years) presented in the 1986-90 EIS. The KPC 1989-94 DEIS also offers a useful model for this type of analysis.

5. We feel it would be useful to reduce the analysis areas in size and center them, when possible, on communities. This would facilitate the evaluation of logging related impacts on deer and subsistence harvest opportunities as they relate to those communities. For example, logging on the south shore of Tenakee Inlet (Analysis areas 4 and 6) will have more impact on Tenakee Springs deer hunters than logging on North Chichagof which is in their Analysis Area (3). Conversely, deer (or other resources) provided in a distant part of an analysis area will not satisfy the needs of far distant users and communities.

As an illustration of the changes we recommend, on page 2-26 VCU 248 should logically be in Analysis Area 4. VCU 222 should logically be in Area 3, and VCU 289 would more logically fit in analysis area 7. Complicating the issue are VCU's 285 and 286 which are both listed as being in analysis area 1 and 5 (page 2-27) and VCU 325 which is listed as being in analysis areas 9 and 10 (page 2-28).

6. Contrasted to the description of the economic value of timber, the description of the economic value of commercial and sport fisheries, tourism, the guiding/outfitting industry and their effect on the economy of Southeast Alaska is inadequate. We feel this section detailed on pages 3-16 through 3-21, needs to be expanded considerably to reflect the economic importance of other resources of the Tongass. Tables showing the revenue generated, the jobs provided, and the long-term trend in these economic sectors should also be provided.

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7. The list of emphasis species included in Table 3-4 on page 3-17 does not include pink salmon. As a species dependent upon clean spawning gravel and which may be affected by increased sedimentation or destabilization of stream channels, we recommend this species be included in the list.

8. We do not see a logical reason to link VCU 241 through 245 to Corner Bay for timber haul, as is proposed on page 3-54, when three permitted LTF's exist in VCU 245 and two exist in Sitkoh Bay (VCU 243). The proposal would result in the cutting of timber near Peril Strait, hauled by truck to Tenakee Inlet, and then towed from Tenakee Inlet, down Chatham Strait, and back into Peril Straits (past existing LTFs) on the way to the mill.

"Administrative purposes" are cited as another reason for construction of the Kadasham road. However, we feel the environmental costs of this action far outweigh any benefits and strongly oppose this proposal.

9. On pages 4-13 and 14, Table 4-12 displays "Unit Acreage Changes from the Final EIS to Laid Out" acreage. The information presented in this Table is somewhat disturbing since it reveals such a large difference between what was evaluated in the EIS and what was actually laid out on the ground. Although the total acreage is similar, the changes show that 20 percent of the acreage logged was not as described in the EIS. Our NEPA and ACPM consistency reviews of USFS activities are based on information provided in environmental disclosure documents for these sales. Often units are located in such proximity to environmentally sensitive areas (e.g. riparian lacustrine, estuarine, etc. habitat) that minor changes could result in significant impacts which we would have challenged. However, without the opportunity to review these activities, there is no opportunity for our involvement. We feel it is essential to develop a mechanism to address changes between the final SEIS and ultimate unit layout.

Additionally, presentation of this same information in net volume change would improve this information base.

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Specific Comments

The following are a page by page listing of specific comments on the EIS. These are items which we feel need to be expanded upon, clarified, or corrected in the final SEIS.

1. Page 2-4: According to the 1981-86 EIS, the reason for deferring Krestof Island and Fish Bay areas was "[to reduce impact on deer" in watersheds which had experienced recent timber harvest. Such a rationale, applied throughout the sale area, would preclude timber harvest in many other VCUs. We feel that further elaboration on this issue would strengthen the document.
2. Page 2-4: According to our records, about 10.7 percent of the CFL in Fish Bay is in young regrowth status (poletimber and younger).
3. Page 2-5: "Proximity to the Marine Highway and important wildlife values" are listed as reasons (in 1981-86) for deferring entry into Appleton Cove and Saook Bay. These areas appear to be less visible, and have lesser wildlife values than other areas that were not deferred such as Sitkoh Bay, Sitkoh Lake, False Island, and White Rock). A further explanation of this item is needed in the final document.
4. Page 2-6: Kelp Bay was deferred in 1981-86 "for protection of important deer habitat, including winter range". We concur with this reasoning, but feel there is an inconsistency in not applying this reasoning to other VCUs which have experienced similar or greater levels of timber harvest.
5. Page 2-12: This section should be expanded to clarify a significant policy change by the Chief of the Forest Service. As a result of this change, the Forest Service is no longer compelled to prepare 450 MBF/year if market demand doesn't warrant it. We would appreciate a clarification of this item.
6. Page 2-13: In light of recent action on H.R.1516, and intent language accompanying recent Congressional appropriations, we are not convinced that the statement "Congress has reviewed this matter and has not deemed it fit to change management direction to the Tongass National Forest" fully represents the current situation. More recent actions by Congress should be further detailed in the final EIS.

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7. Page 2-18: The document states, ".....if first entries are not made in a timely manner in the Contract area, the second and third entries would be affected." Reference to "three entries may be misleading." We are not aware that this plan, nor the Tongass Land Management Plan, schedules when and how often a watershed is entered over the rotation. Thus far site- and time-specific scheduling has been made for 5-year periods only. There are numerous examples of VCUs on the Tongass which have already been entered 2 or 3 times since the 1950's, and others (especially on Prince of Wales Island) where continuous logging activity makes it difficult to define when one entry begins and another ends.

8. Page 2-25: Reference is made to Alaska Timber Task Force guidelines for log transfer facilities as detailed in Appendix G. In that appendix, under the column titled "Evaluation of Site Against Guidelines", it is unclear whether "no" means the particular site was not evaluated, whether it was evaluated but did not comply, or whether it was evaluated and does not violate the particular guideline.

9. Page 2-31: In Table 2-1, the term "practicable timber" is not defined in either the text or the glossary. We recommend use of one of the standard TLMP terms: commercial, noncommercial, normal, nonstandard, inoperable, and suitable to define forestland to clarify this item. It would also be helpful to include a column showing available volume on VCUs "not considered" (VCUs 205, 207, 240, 241, 244, 245, 286, 401). Additionally, where do partially deferred VCUs (419 and 420) fall in this table?

10. Page 3-4: The vegetation list does not include the most common shrub, early blueberry. Liverworts and single delight are relatively rare and would best be replaced with trailing bramble and/or goldthread. Flowering dogwood is more commonly known as bunchberry, or dwarf dogwood.

Old-growth is characterized by a relatively diverse, abundant understory. Western Hemlock and Sitka spruce predominate in the sale area. Western red cedar and cottonwood are relatively rare.

It should be noted that second growth stands are characterized by more (not fewer) dead and dying trees

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than old growth. The stocking level goes from over 3,000 trees per acre in 10 year old stands, to about 300 trees per acre in 120 year old stands.

11. Page 3-4: The description of former old growth stands affected by windthrow, landslide or logging also needs to detail the changes in understory. This change constitutes much of the affect on wildlife and thus has considerable significance.

12. Page 3-7: In figure 3-3 we are uncertain what the percent figure refers to. This should be clarified.

13. Page 3-17: In Table 3-4 the description of brown bear habitat should mention old-growth timber adjacent to to riparian areas and avalanche chutes. For bald eagle, pine marten, land otter, Sitka black-tailed deer, black bear, and brown bear, the term old-growth should be added to each of the habitat descriptions.

14. Page 3-18: The statement is made that "some biologists indicate a concern that deer movement may be constrained during severe winters if snow accumulations at sea level exceed one foot for four or more months". However true this might be, it suggests some critical threshold which has not been documented. Most biologists, for example, would be concerned if snow depths exceeded 1 foot at sea level for 2 months.

15. Page 3-19: The description of streamside riparian habitat as "forested area within 500 feet of anadromous spawning streams does not take into account differences in individual streams. A definition based on soil types and plant associations would be more meaningful. Additionally, this list should include all streams utilized by anadromous fish, whether for spawning, rearing, or important for maintaining water quality and channel stability

16. Page 3-24 through 3-33: This description of VCU use by individual communities should include some indication of numbers of individuals who harvest fish and game in an individual VCU and in what quantity. Additionally, a number of casually presented conclusions in this section need to be supported by data. A list of those inclusions include:

a. "The traditional and customary harvest of foods including deer, ducks, geese, berries, roots, salmon, halibut, shellfish, and bottomfish are integral to Hoonah's way of life."

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- b. "Today, Angoon remains a gathering and hunting society."
- c. "Use of natural resources is traditional and significant throughout the year by the majority of (Tenakee) residents."
- d. "Pelican's main subsistence uses include deer hunting, trapping furbearers, waterfowl, fishing, and shellfish gathering."
- e. "Deer hunting is the only known subsistence use of the area by Petersburg residents." What about salmon and waterfowl?
- f. "The traditional subsistence uses by Kake residents include hunting for deer and waterfowl, fishing, trapping furbearers, and gathering shellfish."
- g. "Sitka residents hunt, fish, trap, gather shellfish, and gather berries for subsistence purposes."
- h. "Subsistence use by Elfin Cove residents is deer hunting, shellfish gathering, salmon trolling, and fireweed gathering."
- i. "Today, many residents (Port Alexander) fish commercially and choose to live here because of the location and subsistence lifestyle."
- j. "Many subsistence uses (Point Baker/Port Protection) are deer, bear, waterfowl, shellfish, trapping furbearers, and gathering berries."

Subsistence harvest of fish and game by residents of Craig, Gustavus, Haines, Klauock, Skagway, Wrangell, Yakutat, and other SE communities may take place within the study area. The possible effect of timber management on their uses needs to be evaluated and a determination made as well as for the communities treated in Chapter 3.

- 17. Tables 3-5 through 3-12 show subsistence use of seven communities by species by Value Comparison Unit. Data for Angoon, Kake, Hoonah, Sitka, and Tenakee are from major studies conducted by the Division of Subsistence using standard subsistence mapping methodologies. Data

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for Pelican are probably from the Coastal Management Plan and are based on an unknown methodology. These data need to be properly cited to source.

Data for Port Alexander and Point Baker/Port Protection may be from Forest Service studies and appear to be misleading. Port Alexander was visited by Forest Service staff for two days, Sept. 30 and Oct. 1, and a map was prepared based on interviews held on those two days. Given this uncertain methodology, the very preliminary, unpublished, unreviewed, and uncirculated data from this two day visit should not be taken as the last word on Port Alexander subsistence nor be used in this document.

According to Table 3-11 Port Alexander residents only hunt and fish in a few VCU's on Kuiu Island and they do no harvesting anywhere nearer to home on Baranof Island. In fact, the USFS trip report for Port Alexander (Nov. 1987) that was used to provide the DEIS data indicates that only three people from Port Alexander completed a subsistence questionnaire and also states that subsistence uses by members of that community were not confined to Kuiu Island but include portions of Baranof Island as well.

Similarly the Point Baker/Port Protection subsistence use as shown in Table 3-12 is restricted to a small number of VCUs on Kuiu Island. Other hunting areas for Port Alexander, Point Baker/Port Protection are recognized by the Alaska Board of Game, and we know members of these fishing communities harvest in other VCUs.

- 18. Page 3-36: In Table 3-15, what is meant by the category "other"?
- 19. On pages 3-37 through 3-62: A series of Tables provides harvest information for the analysis areas being considered in detail. We feel the inclusion of TUMP operable acres by volume class including what portion of each volume class has been and is scheduled for harvest in each VCU is needed in the final EIS.
- 20. Page 3-27: Table 3-19 indicates there are zero miles of road in VCU 222. According to our records, there are about eight miles of road and active logging ongoing in this VCU.

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21. Page 3-36: The information on deer habitat capability needs to indicate the basis for this analysis. We are uncertain if the "current deer habitat capability" includes units which have previously been released but have not been cut.
22. Page 3-38: We note that Private Lands are included as deer habitat. Given the timber harvest trends on private land throughout southeast Alaska, we do not believe this acreage should be included.
23. Page 3-38: In Table 3-18, we note that VCU 191 is missing. Additionally, the state has long been on record as disagreeing with the TLMF definition of deer winter range. We believe this definition which includes significant amounts of muskeg and nonforest habitats should not be used (see State comments on 7066 report, 1986). The final document should utilize a more acceptable definition derived in consultation with our Game Division.
24. The equivalent of Table 3-28 (analysis area 5) depicting "Acres Scheduled by the 1986-90 EIS by Alternative" has apparently been omitted for analysis areas 2 and 3.
25. Page 3-44: Table 3-23 indicates that VCU 204 and 216 have no deer winter range, and that VCU 204 with several miles of shoreline has no beach fringe habitat. This information suggests there may be some erroneous assumptions in these analyses including the deer winter range definition.
26. The equivalent of Table 3-15 (analysis area 2) depicting "Acres of Existing and Scheduled Timber Harvest" is missing for analysis area 3.
27. The equivalent of Table 3-14 (analysis area 2) depicting "Timber Harvest Units and Acres scheduled for Harvest by Operating Period" should be included in analysis area 5.
28. Page 3-46: Although "very little" harvest activity has taken place relative to the total forested land base, logging has taken place at the head of virtually every bay and major stream. The high environmental sensitivity of these sites magnifies the impacts of this past harvest.

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29. Page 3-46: Table 3-25 is useful and informative and should be included in analysis areas 2, 3, 6, and 12.
30. Page 3-49: The text states that "deer are the only species for which additional information has surfaced since the 1986-90 EIS was published". Similar habitat models have been developed for all other emphasis species in conjunction with the TLMF revision process. Those models should be used in the phase 2 analysis.
31. Page 3-51: For comparisons sake Table 3-32 should conform with others that show the same type of information (e.g., Tables 3-14 and 3-20). Also, the acres and units columns are transposed in this table.
32. Page 3-52: For comparison sake, Table 3-33 should conform with others that show the same information (e.g., Tables 3-15 and 3-27).
33. Page 3-52: Table 3-34 would be improved by displaying acres of existing and scheduled harvest in NOI-deferred VCUs, ROD-Postponed VCUs, and VCUs not considered. Changing the title on Table 3-34, "TLMF Operable Acres by VCU" would make it consistent with other analysis areas (e.g., Table 3-16, 3-21, and 3-26). According to our records the first 3 VCUs listed in Table 3-34 as ROD postponed, are NOI deferred.
34. Page 3-53: We are uncertain whether Table 3-35 refers to the 1981-86 or 1986-90 EIS. Also, for comparisons sake, the inclusion of volume calculations used in this table would be useful in comparable tables for other analysis areas.
35. Page 3-54: It is our understanding that past activities in this analysis area were also served by an LTF at Corner Bay in VCU 236.
36. Page 3-56: Regarding Table 3-37, the acreage figures for each of seven habitat categories listed in this table reportedly come from TLMF. That data is also available for VCUs 240, 241, 244, and 245 (those "not considered" in 1986-90), as well as for all other VCUs in each analysis area. Adding this information to the tables would be useful in the final EIS.
37. Page 3-62: Table 3-44 utilizes new terms including "National Forest Acres and Remaining Harvest Acres".

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Inclusion of categories from previous tables including Operable CFL Acres, Existing Harvested Acres, Scheduled Harvest Acres, Existing Road Miles, and Planned Road Miles, would help relate this table to previous tables which it summarized. Otherwise, the terms need to be defined.

39. Page 4-1: Item 2 refers to "serialized units" which were not carried over from the 1981-86 Preferred Alternative. To what does the term "serialized units" refer?

40. Page 4-4: The text should make it clear that the model used to project deer habitat capability has not been tested or verified.

41. Page 4-7: Reference is made to "a recent deer habitat capability analysis of adjoining private lands and National Forest Lands" which only evaluates deer habitat capability to December 31, 1990. This is a serious shortcoming, since during periods of mild winters, the most severe impacts occur 20 to 30 years after logging. Again, we feel a long term cumulative impact analysis is necessary in the Final EIS.

42. Page 4-8: Reference is made to "updated Life of the Sale Plans" where harvest is anticipated for the balance of the contract. This Department would like to receive copies of those documents as they are developed.

43. Page 4-10: We note that in Table 10, 1848 acres were deferred by agreement on 1/4/85. Are these acres available for the 86-90? The table also shows 3,379 acres considered but "deleted" from the 1981-86 plan. Why were these acres deleted, and will they also be considered in the 1986-90 EIS?

Page 4-11: Table 4-10 lists unit numbers harvested during the 1981-85 period. The inclusion of a map depicting the location of these units in the final document would make this information more useful. Additionally, we feel a table showing the number of units, average unit size, average unit volume, and number of acres cut in each area is needed.

44. Page 4-12: Table 4-11 shows planned and laid-out timber. The first column, showing 1981-86 planned acres, is identical to the column in Table 4-9 showing "carried over", except for 4 VCU's listed as not available.

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45. Page 4-15: A common reason for moving unit boundaries is a desire to avoid "isolating" timber. This is an important consideration which should be explained in some detail. In some cases there are environmental reasons that result in the isolation of timber. On the ground decisions to pick up that timber may circumscribe the intent of the original unit design.

46. Pages 4-16 thru 4-19: Very limited data on subsistence harvest of fish and game in four southeast communities are presented in tables 4-13 through 4-17 with the same data also appearing in appendix J. The sources for subsistence data utilized by the team and listed in appendix J includes only 21 references. Many of these refer to personal communications and unpublished documents. Additionally, some are on deer ecology. Much better and more detailed data on subsistence harvests are available and were supplied to Forest Service staff by the Division of Subsistence. A more complete job of presenting subsistence harvest data would provide data summaries showing levels of harvest by species for all communities where such data exists.

At the time of the letter of intent, data were available from Division of Subsistence studies for the communities of Angoon, Haines, Hoonah, Kake, Klukwan, Sitka, and Tenakee. Data for Gustavus, Edna Bay, and some other communities were available from Forest Service and Fish and Game Advisory committee reports.

Harvest data for each of 30 southeast subsistence communities from the Tongass Resource Use Cooperative Study (TRUCS) has been available since June, 1988. This was a major cooperative study of subsistence funded by Forest Service and conducted jointly by the University of Alaska, Institute of Social and Economic Research and the Division of Subsistence.

In addition to harvest data from subsistence studies, diachronic data on deer harvest and harvest effort by community are available from our Game Division. Subsistence salmon harvest data based on subsistence permits by species and community are available from our Commercial Fisheries Division. These data should also be reported in the final EIS.

47. Page 4-17: The document states that it followed the Forest Service Subsistence Management and Use Handbook

(FSH 2609.25) in analyzing subsistence data. We do not feel this 810 handbook provides detailed direction as to what data sources need to be examined and how an evaluation and determination might take place. As we previously indicated, we believe the Alaska Habitat Management Guide and the procedure utilized by the Alaska Boards of Fisheries and Game would be more useful.

Page 4-17: The document generally refers to subsistence harvests or subsistence use as personal harvest or personal use (cf 4-17, 4-18). Sometimes it lumps in recreational hunting, fishing, crabbing, and subsistence uses (cf 4-21). These are not the same thing, and the usage in the document is confusing in light of ANILCA, the State of Alaska subsistence law, and fish and game regulations.

Page 4-17: Item 5 indicates that deer habitat capability was assessed using a model developed by Rod Flynn, Lowell Suring and others (and is included in an appendix). This statement is misleading. The model included in the appendix is a draft model which has neither been tested nor verified by its authors. The model that was used in the SEIS may have been developed in consultation with some of the same authors, and may use a few of the same components (as described in the SEIS later). However, it is not appropriate to imply that the model developed by the multiagency group for TLNP revision was used in this analysis.

Page 4-20: Since only a small number of communities in southeast Alaska are represented, the map in figure 4-1 may be misleading. For example it is common for residents of other communities throughout southeast to return "home" to subsistence hunt or fish with family members. Thus dark areas are not necessarily used more or by more communities than light areas. Forest Service staff should consider dropping this map in the final EIS.

At the time of the letter of intent, maps showing the extent of subsistence use by species were available from Division of Subsistence studies for only six communities--Angoon, Hoonah, Kake, Klaucock, Sitka, and Tenakee. Intensity of use data, showing the percentage of surveyed households using each portion of the subsistence harvest territory are also available for five of these communities (not for Sitka). These intensity of use data should be reported.

Mapped data for all SE subsistence communities were collected as part of the TRUCS subsistence study. Maps based on these data will be ready later this year and should be used in the final for communities where Division of Subsistence data has not been supplied.

51. Pages 4-21 thru 4-30: Tables 4-18 through 4-33 strive to show subsistence use in the various analysis areas. Although it's not immediately clear what the numbers in the tables represent, it appears that any use of a resource in a given VCU by any responding member of a community, increased the score for that resource/VCU by one. We do not feel this is a realistic measure of importance. VCUs which are accessible to several communities, for example, will have higher scores (more importance?) than the VCU that is used by one community and provides the bulk of that community's subsistence needs. These tables need to be dropped or redone in the final EIS to provide a more accurate measure of the importance of each VCU.

52. Page 4-31: The statement : "Since effects of 1981-86 activities on subsistence resources were evaluated during the 1986-90 environmental statement process, the finding of no significant restriction on rural resident's opportunities for subsistence for 1986-90 Operating Period also covers subsistence for 1981-86 Operating Period" is not justified. The need to prepare an analysis of effects on subsistence, pursuant to section 810 of ANILCA, was an issue in the court challenge which prompted this SEIS (Issue No. 6, summary).

53. Page 4-32: The SEIS states: "The draft habitat capability model for Sitka Black-tailed deer (Suring et al. 1988) used in the analysis was..." Comment number 49 also relates to this statement.

54. Page 4-32: The model that was used assumed habitat values associated low elevations and southerly aspects. Applying these high values across the entire landscape (including less valuable north slopes and higher elevations) will result in an overestimate of deer habitat capability.

55. Page 4-34: Concerning Table 4-35, the model does not reflect the reduction in habitat capability that would occur as acres of pre-existing young clearcut move into second-growth status between 1980 and 1990.

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55. Page 4-35: The Department of Fish and Game has suggested a conservative harvest target of 10 percent since true kill may be 2 times the reported harvest. If the reported harvests are used in this analysis, then the conservative target should be used. If a higher target is assumed, more realistic harvest rates (including unreported kill and crippling kill) need to be calculated.
57. Page 4-36: ADF&G major hunting units are too big to be meaningful in a subsistence analysis. The Department now has harvest information by minor harvest unit which should be used in the final EIS.
56. Page 4-36: Table 4-38 shows a reduction in the number of deer available between 1980-90 in subunit 33. This figure is not reflected in the deer habitat capability between 1980-90 in Table 4-35. This discrepancy should be clarified.
59. Page 4-37: The SEIS used the terms rural and nonrural, and recreational harvest and rural community harvest. These terms should be explicitly defined.
60. Page 4-37: In Table 4-39 the word "Reported" should be inserted before "Harvest".
61. Page 4-41: Table 4-41 would be a good place to display information on harvest by volume class (acres available and acres and percent logged).
62. Page 4-46 and 4-47: Concerning Table 4-43, according to our records, the record of decision scheduled 837 acres for timber harvest in VCUs 201 and 202. The table (under Record of Decision Column) shows no harvest scheduled in those VCUs.
63. Page 4-48: In Table 4-44 the timber volume calculations for each alternative were based on an assumed 29.1 MBF/Acre. However, Table 4-33 does not show any alternative with such a high volume per acre. This should be clarified.
64. Page 4-48: Concerning Table 4-45 detailing Analysis Area 2, the 1986-90 record of decision scheduled 837 acres in this analysis area. However, the table shows a 1980-90 Harvest (planned? existing?) of 518 acres. How does this relate to the 837 acres scheduled?

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65. Page 4-50: The final analysis needs to show more than effects on species habitat. It should further display effects on species populations and on communities ability to successfully harvest/utilize those populations.
66. Page 4-50: Concerning Table 4-47, as we have previously stated, winter range is improperly defined. Redefining winter range and recalculating the figure would be the most appropriate way to deal with this problem. Additionally, to appreciate the relative importance of these impacts, the percentage of each habitat affected should be displayed along with absolute acres. Also, we recommend inclusion of a row at the bottom of this table for the ROD, and delete the words "But not selected: from the title. This recommendation applies to comparable tables in other analysis areas.
67. Page 4-51: The statement "None of the alternatives would reduce deer habitat capability more than 5 percent" should be followed by "the year 1990"
68. Page 4-51: Does Table 4-48 refer to the number of deer or number of acres? Also, why is there no change in habitat capability under the ROD if 837 acres were approved for harvest.
69. Pages 4-52 and 4-53: In Figures 4-4 and 4-5, the source of the identified areas to be managed to provide oldgrowth habitat conditions needs to be documented. In the Final EIS documents we feel that these areas should be established through consultation between USFS fish and wildlife specialists and ADF&G fish and wildlife biologists. This also applies to corresponding figures throughout this section.
70. Pages 4-56 and 4-57: According to Table 4-49, the average volume per acre for alternatives B and C was 20.0 and 20.8 MBF/acre respectively. In calculating the available volume from those alternatives a value of 29.1 MBF/acre was used. The same applies to other alternatives. Additionally, the timber cruise estimates cited in Table 4-49 (and in tables for other analysis areas) are lower than the cruise estimates agreed to between the Forest Service and APC. This is of concern because it may reflect the need for adjustments to cutting unit boundaries between the final EIS and actual unit layout (see Table 4-12).

October 14, 1988

71. Page 4-73: In Table 4-53, a column to indicate percent of this habitat component in the analysis area that each of these numbers represent would be meaningful. Also we recommend inclusion of the ROD in this table combined with a clearer title.

72. Page 4-74: Table 4-54 shows no reduction in habitat capability under the ROD. Given the large amount of forestland scheduled and currently being logged in this analysis area, we question this figure.

73. Page 4-76: Table 4-57 is unclear. For example, alternatives A and C show the same amount of operable CFL, the same amount of timber harvest, the same amount of timber "available", and different percentages of "timber remaining". If the harvested acres are compared against the operable CFL in both cases, the percent remaining should be 85.7 (not 89.7 and 95.4). For the ROD we do not understand how harvesting more acres (2,448 more than alternative A) can result in more "remaining"?

74. Page 4-77: In Table 4-58, a row for ROD figures is needed.

75. Page 4-78: Table 4-59 should also include ROD postponed VCUs and VCUs not considered as was done in Table 4-53.

76. Page 4-79: Table 4-60 should also include a display for the ROD as was done for the other analysis areas.

77. Page 4-81: Table 4-62 shows zero acres and zero volume available in non-deferred VCUs in analysis area 6. However, the 1986-90 ROD scheduled 672 acres in VCUs 236 and 239, and timber was made available from these VCUs in every alternative. This should be clarified.

78. Page 4-82: In Table 4-63, does the operable CFL include acreage in VCUs not considered? (VCUs 240, 241, 244, and 245)?

The table shows no harvest between 1976-81 in analysis area 6. We understand that units were cut in 1978 and 1979 in VCU 239.

Also, the ROD scheduled 1,481 acres for harvest in 1986-90. How does that figure relate to the 672 acres listed under 1986-90 harvest in this table?

October 14, 1988

79. Page 4-83: Table 4-64 shows no miles of road needed to access timber in VCUs 236 and 239 (Corner Bay and Kook Lake). Is this true?

80. Page 4-83: We take issue with the statement "Unless the Road (Kadashan) is completed, timber harvest in VCU 235 may not be logically feasible." Additionally, as we have repeatedly stated, this Department strongly opposes any timber harvest in this premier VCU.

81. Page 4-85: In figure 4-21, two units on the right hand side of the road, just above Corner Bay, are not shown.

82. Page 4-86: In figure 4-22, one unit NE of Kook Lake is not shown.

83. Page 4-90: In Table 4-67, VCU 405.1 should be included with NOI-deferred VCUs. VCUs 398 and 401 should be included under a "not considered" heading.

84. Page 4-91: In Table 4-69 the ROD scheduled 8,292 acres under 1986-90. How does this figure relate to the 1,995 acres listed under 1986-90 harvest in this table?

85. Page 4-93: In Figure 4-25, the proposed cutting unit in the fork of Saginaw Creek represents the last patch of high-value deer winter range left between two very large existing clearcuts. It is our understanding this unit has already been logged in spite of our objections in the original 86-90 EIS.

86. Page 4-94: In figure 4-26, the road through proposed cutting units is not shown.

87. Pages 4-96 and 4-97: There appear to be discrepancies in areas identified to be managed to provide old growth habitat conditions between figures 4-28 and 4-29. This situation also occurs in figure 4-30 and 4-31.

88. Page 4-107: We disagree that the photo of the 165 year old stand shows good wildlife habitat. In general stands of this age provide relatively poor habitat and this photo does not appear to be an exception.

These comments may be supplemented by a letter to Gordon Anderson dated October 7, 1988. This letter details

Diane Mayer

-21-

October 14, 1988

concerns identified during our map review of the unit pool
for the portion of the sale on Chichagof Island.

Thank you for the opportunity to comment.

cc: J. Pierce, USFS, Juneau
H. Neuhouse, USFS, Juneau
G. Anderson, USFS, Sitka
M. Cooper, USFS, Petersburg
D. Grant, ADNR, Juneau
D. Stokes, ADEC, Juneau
T. Meyers, NMFS, Juneau
M. Holmberg, USFWS, Juneau
EPA, Juneau
ADFG 86-90 Distribution List

From: NFBCESED --JDCVMI
To: GCHCEM --JDCVMI
From: Department of Natural Resources
SUBJECT: APC SDEIS

Date and time 10/13/88 18:19:49

cc: FHICPRG --JDCVMI
DNR/Division of Forestry/Juneau
165-2491

VROCSE --JDCVMI

Dick Stokes

DEPARTMENT OF NATURAL RESOURCES

Diane E. Mayer
Office of Management & Budget
Division of Governmental Coordination
Juneau
October 13, 1988
9-1106.3
465-2491

Thru: Jim McAllister
SE Regional Forester
Alaska Pulp Company
Draft Supplemental
EIS for '81-86 & '86-90
Operating Periods

J. Andrew Grant
Juneau Area Forester

The Department of Natural Resources has reviewed the Alaska Pulp Company's (APC) Draft Supplemental Environmental Impact Statement (SDEIS) for the 1981-86 and 1986-90 operating periods. Basically we consider the SDEIS adequate in meeting the intent of the Notice of Intent, however, there are some errors throughout and seems somewhat poorly organized. For instance, one loses track of which subsection ones is in when reading.

Table 4-4, page 4 of Chapter 4: though useful as an overview, this table should show the estimated timber harvest on Native lands for the contract area as opposed to southeast wide. The entire discussion on Native corporation land management could be expand to meet the intent of evaluating the effects of Native timber harvest on National Forest lands. This section seemed lacking.

The SDEIS' analysis of effects on subsistence resources and use in relation to the alternatives considered in the supplement seems lacking and does not appear to meet the intent of Section 810 of ANILCA. Perhaps the current subsistence survey information that is being developed for the TLMP revision can be incorporated in final EIS.

There does not appear to be any real economic analysis of the the various alternatives with regards to logging costs, profitability, etc. Perhaps this will be included in the Phase II document, if not, it should be.

Finally, Appendix G, proposed LTF's in the contract as compared to the Alaska Timber Task Force guidelines, could be greatly reduced by listing the ATF guidelines once and for guideline ID simply relate the LTF character; or set-up in table form for better comparison.

Thank you for the opportunity to comment.

#10

CITY OF TENAKEE SPRINGS

ADMINISTRATION
(907) 736-2221

MAYOR

October 20, 1908

Larry Pierce
USA Forest Service
Supplemental Environmental Impact Statement
P.O. Box 21628
Juneau, Alaska 99802-1620

Dear Mr. Pierce:

In response to your request, we offer the following comments relative to the "Draft Supplement to the Environmental Impact Statement for the 1981-86 and 1986-91 Operating Periods (Phase II) (Alaska Pulp Corporation Long Term Timber Sale Contract):

1.

In the main, this response will attempt to limit itself to specific comments, suggestions, criticisms and questions, even though the Draft Supplement, at times shucks such restraints to reach conclusions based upon broad assumptions, supported by plethora of selective data. Our remarks follow a review of the Phase I document, and reflect our reactions to the whole volume generally and to its implications for Tenakee Springs, more particularly.

2.

And from that particular viewpoint, one finds almost from the outset - error: "...and construction of a road from the City of Tenakee Springs to the Indian River Road. The latter segment is presently an all terrain vehicle trail." (G2 p8 G12). Be corrected: vehicles are not allowed to use the trail between the Tenakee Boat Harbor and the Indian River Road and have not been since 1977.

Indeed, Ordinances 77-7, 82-5 and 85-9 restrict the use of vehicles in this "latter segment" to beach travel on state tide lands.

Purposely or not, the Draft Supplement not only repeats this mistake but compounds it: "...the City of Tenakee Springs made known that they did not wish the Indian River Log Transfer Facility reopened. Current information indicates that the residents of Tenakee Springs maintain and use an ATV trail between Tenakee Springs and the terminus of the Indian River Road." (G3 p41 G131).

Tenakee Springs takes pride in the maintenance of its foot-path trail system. To suggest that this particular trail is maintained by Tenakee Springs for ATV use is more than misleading, it is falsehood, plain and simple.

If accuracy is the aim of the Draft Document, we suggest then that "The Indian River Log Transfer Facility, a "Single A-Frame" facility, was located two miles east of the City of Tenakee Springs." (G3 p41 G131), the location of the Indian River Log Transfer Facility be correctly situated within the City of Tenakee Springs, 2 miles east of the town

Tenakee Springs Response to SEIS

Page TWO

center. Current wording could reasonably be interpreted to lead the reviewer to believe the area not to be within the political jurisdiction of the City of Tenakee Springs.

3.

The Draft Supplement reflects a Forest Service emphasis on a single (timber industry) resource use over sustained-yield multiple-use.

No where is this bias more clearly demonstrated than in Chapter three, where nine pages extol the commercial timber industry and its benefits in pictures, text and numbers.

Wildlife and fish, recreation, rural communities and a myriad of other uses and users receive only honorable mention.

No dollar amounts or employment figures are attributed to the commercial fishing, recreation or tourism industries equally dependent upon the forest habitat. Nor are equivalent dollar avoidable costs listed for subsistence use.

We suggest it would be prudent to compare all of the facts before reaching decisions allocating resources between the multiple-uses of the Tongass National Forest. The Draft Supplement is deficient in this respect, the data selective.

4.

As in most other rural communities, the protection of fish and wildlife habitat is to us, critical.

We challenge the data presented in Chapter 4 (pp34-35), as it applies to Alaska Department of Fish and Game Subunit 36 (Tenakee Inlet).

A. Habitat capability is based upon optimum conditions. Current high deer populations are the result of a lone series of mild, "open" winters, not habitat management.

Some biologists believe that a severe series of winters (as in 1968-74) would result in a crash of the deer population, the results of which exacerbated by roading and clear cutting, would be much longer-termed than during the previous series.

The Alaska Board of Game evidently disagreed with the Forest Service's optimistic forecast that its planned roading and clear cutting would have little or no effect on deer populations, when it ordered, at its spring 1988 meeting, that the personal use (sports) deer bag limit be reduced from six to three deer within Tenakee Inlet and along the Ikroonah forest road system.

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Indeed, the recent emergency closing of bear hunting on Northeast Chukot Island by the Alaska Department of Fish and Game, reflects a concern apparently not shared by the Forest Service and one that goes unmentioned in the Draft Supplement.

In announcing the closure, regional game supervisor, Dave Anderson explained, "The combination of increased hunting on the island, road network connected to the Marine Highway Port of Anchorage, bear/people problems at logging camps and improper disposal of garbage has led to a situation where enough bears are being killed that we are deeply concerned for the future of that bear population." "Much of this problem is due to the lack of improved access throughout this area. While the intentions of island without roads are a sort of 'refuge' for bears and other wildlife, extensive roading eliminates this protective effect, and makes virtually every bear accessible to hunters," Anderson also stated.

'A similar problem with deer', a Fish and Game news release said, 'was brought to the Game Board's attention earlier this year. Game Division biologists and local hunters indicated that there was a potential for an over harvest of deer because of improved road access on Chichagof Island, and the Board reduced the bag limit for non-local hunters in 1992.'

The methodology for computing harvest figures is not accurate enough to apply to local areas. Harvest census requests are sent to 10% of the licensed hunters who request deer tags in Southeast Alaska, from a smaller responding number harvest estimates are extrapolated. While a fairly accurate overall harvest can be calculated, the data can be inaccurate in local areas.

It is obvious - that an honest difference of opinion exists between the Forest Service and the Alaska Department of Fish and Game.

It is also obvious that the habitat capacity analysis planned for Phase II, will have to be done more carefully than was done for Phase I.

The draft Supplement treatment of protection of fish habitat is wholly inadequate. Factual data is lacking and the provision must rely on maps only to determine what effects may occur.

Figure 4-19 indicates further clear cutting on the west fork of Harley Creek. The lower creek supports chums and cohos, yet the creek is not identified (by color code) as an

• there is just bureaucracy

It does not take an hydrologist to realize that by cutting a significant amount of cover from the headwaters of this creek the flow characteristics will be altered for many years. Although discharge, and erosion rates will increase, and low-water runoff will decrease, by any measure diminishing the stream's ability to support anadromous fish.

Admittedly, this is a small stream in the total picture, the point is the whole is the sum of its parts. How often one must ask is this situation repeated throughout the Forest?

The Draft Supplement speaks volumes by speaking so little in this regard.

5.

We must speak to one issue of local consequence in the mapping sections of the Draft Supplement.

All maps showing existing Forest Development Roads within the corporate limits of Tenakee Springs are in need of correcting.

ALL but the Indian River Road (now subject to litigation) should be eliminated.

The road indicated west of Grave Island appears to be the survey boundary of the original Tenakee Townsite (U.S.S. 1418).

The 'road' indicated west of Columbia Point (describing a lazy Y) was put to bed following logging operations and the land selected by the State for a homestead subdivision. A section of it has been dedicated as part of the trail system. Another section, by the way ran through private property (HES 239) under a private contractual agreement long since expired.

The short 'road' indicated running upland just east of Columbia road was (and is) nothing more than a ditch created by dragging logs down the mountain to a sea anchored A-frame. Ah well, in the eyes of the beholder.

9.

This response concludes with a review of environmental concerns prompted by the operation of Log Transfer Facilities.

One notes disturbing elements in the Operating Guide(g):

A. Requirement 'C-9' stipulates that the log transfer system and equipment be operated to MINIMIZE discharge of petroleum and

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Information patches from entering waters.

In as much as such discharge is prohibited by law, we suggest that operations be conducted so as to ELIMINATE these discharges.

11. Requirement M-5 stipulates that waters in the vicinity of a Log Transfer Facility be monitored during operations for the presence of an oil sheen and RECORDED, when observed.

This may indeed be a requirement of another agency's permit, but does it relieve the operator of making a REPORT as required by law? The guideline suggests the Forest Service has been granted extralegal authority.

12. Mentioned in the operations of any of the Log Transfer facilities is the transfer of petroleum from barge tanker to upland storage and discharge to camp boats, camp machinery and camp facilities.

These activities, in the case of the Corner Bay Camp, take place in close proximity to the Log Transfer Facility.

tanklines should be established to meet Coast Guard and EPA DDC requirements for fuel transfer operations, spill clean up, and diked storage.

It is incomprehensible that such activities, the mismanagement of which could cause disastrous effects to the environment, could have gone unmentioned in the Draft Supplement.

We look forward to Phase II and appreciate the opportunity on commenting for the Record on Phase I of this Draft Supplement.

Sincerely,
CITY OF TENAKEE SPRINGS

Rosalie Louison

Rosalie Louison
Mayor Pro Tem

RL:RAP/jc

cc: Karl Mathler, Executive Director SEACC
Tenakee Springs Fish And Game Board
Ivan Grussendorf, Alaska State Representative
Richard L. Eliason, Alaska State Senator

October 23, 1933

Gary Morrison U.S.F.S.
204 Signaka
Sitka, Alaska 99835

Dear Gary,

I feel I should write in reference to the Forest Services Supplemental Environmental Impact Statement.

The 13 areas in which are, for the most part, is being logged now. We definitely feel an impact on subsistence, as a result of logging. The 2 that stand out in my mind the most is, Whitestone Harbor and Freshwater Bay. These areas are crucial to our way of life. Recently when the wind was up and the tides, and we had a lot of rain, the waters around Hoonah were brown. Also we have more bears in our village, and the Fish and Game, feels the only way to resolve this problem is to kill the bears. New roads have impacted our way of life, we certainly don't need more roads, for whatever reason. We not only feel a serious impact now but, I know there will be a series of events, that will come later.

I think the people of Hoonah have seen enough destruction, we can't afford to see other areas being logged. Such as Point Adolphus, Mud Bay, Chicken Creek and Neka River. Like the other 13 areas, we use these areas for hunting deer and seal, fishing salmon, halibut, and crab, for gathering Spruce Roots for Baskets and for different sorts of berries.

You say there will be no impact on subsistence, yet I see, there were no site specific studies, in these areas. You offer, no alternatives, you just told us areas you want to cut. You have to look at a range of alternatives, and not just give to the A.P.C. contract, and overlook our needs, for our way of life.

Please, consider our needs, as we continue and will forever live a Subsistence way of life, if our land is treated with respect.

Sincerely

Ernestine Hanlon
Ernestine Hanlon

Box 358

Hoonah, Alaska 99829

(2)

The Advisory Committee has long Ago Requested That The East Kuiu Area be deferred until The TLMP Revision could address the issue. With HR 1516, East Kuiu, TRAP Bay, Kichashan should all be deferred until addressed more fully by Congress.

The 86-90 Supplemental EIS was largely unreadable to the public. While it was slick with logging photos and nifty computer printouts with a outerspace overview, The number game of statistics left one in the dark as to what was really going to take place.

Not enough Alternatives were offered, The main gist seems to be to over exceed the supply of logs to the mill, not enough was done to protect streamside habitat or meet the changing demands of the Tongass National Forest as Congress makes moves to change the direction of forest policy.

Also, The APC contract needs to be changed to raise the price of public timber that goes to the mill. The shameful giveaway of our rare timber resource is unethical and a pork barrel program of USFS mismanagement.

#13

John R. Swanson
3400 Edmund Blvd.
Minneapolis, Minn. 55406
October 17, 1988

Forest Service - USDA
P.O. Box 21628
Juneau, Alaska 99802-1628

Dear Sirs:

Please accept my comments concerning the Alaska Pulp Corporation Long-term Timber Sale Contract Draft Supplement to the Environmental Impact Statement for the 1986-90 Operating Periods.

As the area included in this contract area contains outstanding wilderness, wildlife, biological cultural and scenic resources of certain National and International significance, and as this contract area provides a vital refuge for man, and for all life on this endangered planet.

1. then urge that the Alaska Pulp Corporation Long-term Timber Sale contract be declared null and void.

As logging and roading in this area is substantially destructive to the lands water and air resources of the Tongass National Forest and with such timber activities in this area actually destroying this National Forest.

With this contract area being very unique, varied and fragile, and as it fully benefits man, and all life on this damaged earth; I strongly advise that (at most) 1,677,000 acres of this contract area be classified as Wilderness, and included as a National Wilderness Preservation System, at this time.

For when we save wilderness, we save the Tongass National Forest!

Sincerely,

John R. Swanson

"Typed for Clarity"

IV 5

IV 4

JOHN R. SWANSON
3400 Edmund Blvd.
Minneapolis, Minn. 55406

October 17, 1988.

Forest Service - USDA

P.O. Box 21628

Juneau, Alaska

99802-1628.

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1. then, urge that the Alaska Pulp Corporation Long-term Timber Sale contract be declared null and void.

As logging and roading in this area is substantially destructive to the lands water and air resources of the Tongass National Forest and with such timber activities in this area actually destroying this National Forest.

With this contract area being very unique, varied and fragile, and as it fully benefits man, and all life, on this damaged earth; I strongly advise that (at least) 1,677,000 acres of this contract area be classified as wilderness, and included in our National Wilderness Preservation System at this time.

For when we save wilderness,
we save the Tongass National Forest!

Sincerely,

John R. Swanson.

October 22, 1988

October 22, 1988

Mr. James W. Pierce
SEIS Team Leader
USDA - Forest Service
Federal Bldg.
P.O. Box 21628
Juneau, AK 99802-1628

Dear Mr. Pierce,

I would like to make some comments regarding the Draft Supplement to the EIS's for the 1981086 and 1986-90 operating plans. First of all, I found the document extremely difficult to obtain information from. The presentation of material did not lend itself to easy interpretation with respect to actual effects in specific areas.

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IID13

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The EIS would seem to be an insufficient analysis of subsistence impacts. Subsistence is documented in terms of VCU's used for a particular subsistence resource, but no analysis of the relative value of each VCU is made. Clearly some VCU's are more important than others, and would cause a greater hardship to subsistence users if lost due to timber harvest. Also, there seems to be no admission of past effects of timber harvest on subsistence, even though such effects have been cited by ADF&G.

This draft does not sufficiently examine several important alternative ways to meet timber demand, such as logging outside the contract area, acquiring timber from other sources, or re-entering old sites rather than opening up new ones. Equally important; this analysis fails to consider any alternatives that supply less than the full contract volume. These alternatives should be at least considered on the basis that the mill may not need the full amount and the contract area may not be able to handle it without jeopardizing other resource uses. I know that the Forest Service is constrained by the APC contract but it's just and fore most responsibility it to protect the resource, and it should at least be willing to consider the possibility that the two are not completely compatible.

On behalf of the Pelican Forestry Council I would like to point out that we have long been opposed to any logging or roading in the Lisianski River area. The 1986-90 record of decision deferred logging in that area. The 1986-90 record of decision deferred logging in that area, and I presume that is why there is no stated intent to include VCU 249 and 262 in Phase II. In fact I believe that all of Analysis Area I (Pelican - Elfin) will be omitted. I would hope there is no change in this decision, as Pelican has clearly demonstrated its opposition to logging in our area, and has gained the support of timbermen, environmentalists, tourism operators, as well as local, state and national elected representatives.

Thank you for your consideration.

Sincerely yours,
Ruben Yost
Pelican Forestry Council

"Typed for Clarity"

Mr. James W. Pierce
SEIS Team Leader
USDA - Forest Service
Federal Bldg.
P.O. Box 21628
Juneau, AK 99802-1628
Dear Mr. Pierce,

I would like to make some comments regarding the Draft Supplement to the EIS's for the 1981-90 and 1986-90 Operating Plans. First of all, I found the document extremely difficult to obtain information from. The presentation of material did not lend itself to easy interpretation with respect to actual effects in specific areas.

The EIS would seem to be an insufficient analysis of subsistence impacts. Subsistence is documented in terms of VCU's used for a particular subsistence resource, but no analysis of the relative value of each VCU is made. Clearly some VCU's are more important than others, and would cause a greater hardship to subsistence users if lost due to timber harvest. Also, there seems to be no admission of past effects of timber harvest on subsistence, even though such effects have been cited by ADF&G.

This draft does not sufficiently examine several important alternatives ways to meet timber demand such as logging outside the contract area, acquiring timber from other sources, or re-entering old sites in than opening up new ones. Equally important; this

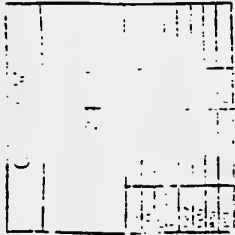
analysis fails to consider any alternatives that supply less than the full contract volume. These alternatives should be at least considered on the basis that the mill may not need the full amount and the contract area may not be able to handle it without jeopardizing other resource uses.

I know that the Forest Service is constrained by the APC contract but its first and foremost responsibility is to protect the resource, and it should at least be willing to consider the possibility that the two are not completely compatible.

On behalf of the Pelican Forestry Council I would like to point out that we have long been opposed to any logging or roading in the Laramie River area. The 1986-90 Record of Decision defined logging in that area, and I presume that is why there is no stated intent to include UCV 249 and 262 in Phase II. In fact I believe that all of Analysis Area I (Pelican ELP) will be omitted. I would hope there is no change in this decision, as Pelican has clearly demonstrated its opposition to logging in our area, and has gained the support of fishermen, environmentalists, tourism operators, as well as local, state and national elected representatives.

Thank you for your consideration.

Sincerely yours,
Ruthen Ford, Pelican Forestry Council



#15

Larry Edwards
Box 6001
Sitka, Ak 99835
Oct 24, 1988

Mike Barton, Regional Forester
US Forest Service
c/o USFS Sitka, AK, 99835

RE: "Draft Supplement to the Environmental Impact Statement for the 1981-86
and 86-90 Operating Periods" for Alaska Pulp Corporation

Dear Mr. Barton;

I would like to submit these comments for the record on the above document.

In reviewing this document, it seems the USFS has behaved like a kid going through the motions of performing an onerous task, rather than making a concerted effort to accomplish something of value with its efforts. The requirement that this document be done seems to have been viewed as a hoop that must be jumped through rather than as an opportunity to make a significant improvement to the quality of planning for the north end of the Tongass.

The document contains NO "life of the sale" plan, NO analysis of long term, cumulative impacts, and NO analysis of the relative impacts to each VCU.

What I find here is a document which is overly thick and intimidating to the public, and so poorly organized and laid out that reviewing it becomes a more than onerous task for the public. In fact, for the most part the document is unintelligible and meaningless.

For example, in the "Environmental Consequences" section I am unable to find any information at all on environmental consequences. All that this chapter does is describe present subsistence uses, harvest volumes, number of acres disturbed, miles of road to be built, etcetera. All of this belongs in other chapters, and not one environmental consequence is discussed in the entire chapter. To describe this chapter and in fact the whole document in a couple of words, it is nothing more than unconsolidated sediment. The document is a loose aggregate of charts, tables, figures, appendices and unnecessary, distracting photographs. Nothing binds it together, and its purpose (other than going through the motions of an onerous task required by the court) has not been accomplished. The document contains no discernable thread of thought or any analysis of significance.

I was very disappointed by the treatment of alternatives. It is very cursory, and seems to be intended to simply perpetuate the status quo of the various alternatives with only the appearance of a re-analysis to fool the public and the court. Any alternatives which "rock the boat" have once again been summarily dismissed without the consideration they deserve. As before, more timber is offered than required by the contracts. As before, alternatives

are ignored which meet the volume needs of the mill but not necessarily the contract volume from the Tongass.

Any approach which takes more volume from the Tongass than the forest can bear is absolutely unacceptable, but that is the situation the USFS is putting us in. It must be remembered that the APC contracts does not rise above the Forest Service's responsibility to forest resources. Innovative means must be implemented, as can be done with several of the rejected alternatives, to provide volume to the mill from other sources. This can include providing pulp logs from native corporations and salvaging beach logs in lieu of logging critical areas on the Tongass. Even now, logs are being exported to Canada from native logging at Hobart Bay, and that is ridiculous when those logs could be substituted for logging on critical areas, to the benefit of the ecological integrity of the Tongass.

The Forest Service always argues that laws and contracts prevent it from adopting innovative alternatives. That is baloney, and it is time for the Forest Service to start being part of the solution instead of the cora of the problem. It is time to start doing clear, analytical, forthright planning rather than obfuscating the planning process (with documents such as this Supplemental EIS) and trying to pull the wool over the public's eyes. Most importantly, it is time for the Forest Service to ask Congress to change any laws which have been an obstacle to doing the job the public is demanding and the forest deserves.

I look forward to a day when letters like this one will not be necessary; to when I can spend my time commenting in detail on the details of a planning document rather than writing angry letters which try to beat a recalcitrant agency into preparing documents which are worthy of comment. I would much rather work with you than confront you, but at every turn the Forest Service forces the conscientious public to be confrontational.

That is not a new complaint from me. I made it over both the 1981-86 and 1986-90 EISs. I told you they were inadequate and must be redone. Well, here we are doing them again under court order, but I see no improvement. So what we are doing this draft of the supplement now, start over, and do it right? We — meaning the USFS, APC and the public — will be much better off in any way you can look at it (time, money, etc) if this bit of planning is redone now to be forthright and proper. This is one shot of deja-vu we would all be better off not to repeat, but I think you well know how easily we may all be returned to this time and place, with everything the same except the pressures higher and time and money wasted in the interim.

Sincerely,

Larry Edwards

II C I

III A 16

III A 19

II B 5

115



UNITED STATES DEPARTMENT OF COMMERCE
The Chief Scientist
National Oceanic and Atmospheric Administration
Washington, D.C. 20230

November 2, 1988

#16

Mr. James W. Pierce
U.S.D.A. Forest Service
Alaska Region
Federal Building
Juneau, Alaska 99802-1628

Dear Mr. Pierce:

This is in reference to your Draft Environmental Impact Statement
on the Alaska Pulp Corporation Long-term Timber Sale Contract.

We hope our comments will assist you. Thank you for giving us an
opportunity to review the document.

Sincerely,

David Cottingham

David Cottingham
Ecology and Environmental
Conservation Office

Enclosure



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21688
Juneau, Alaska 99802-1688

October 24, 1988

Michael A. Barton, Regional Forester
Department of Agriculture
Forest Service, Region 10
P.O. Box 21628
Juneau, Alaska 99802-1628

RE: Phase I-Draft Supplement EIS for Alaska Pulp Corporation
Long-term Timber Sale Contract.

Dear Mr. Barton:

The Alaska Region, National Marine Fisheries Service, has
reviewed the subject document and offers the following comments
for your consideration.

General Comments

The document should include a long-term cumulative effects
analysis throughout the rotation period. Only by defining
effects of timber harvest over the rotation period can the reader
grasp the magnitude of those effects on other forest resources.

The discussion of the economic values of commercial, subsistence,
and sport fisheries, tourism, the guiding/outfitting industry,
and their effect on the economy of Southeast Alaska is
inadequate. This section should be expanded considerably to
reflect the economic importance of these and other resources of
the Tongass Forest.

Table 4-12 lists "Unit Acreage Changes from the Final EIS to Laid
Out." We are somewhat disturbed since this information reveals a
large difference between what was described in the EIS and what
was actually laid out on the ground. Three hundred forty acres
of timber were added to the scheduled out. This acreage was not
evaluated under the NEPA process and should have been covered by
a supplemental document before any harvest was allowed. We can
only comment on effects of timber harvest on those resources for
which we are responsible if we know where that harvest is going
to occur. An increase in cutting in one area could very well
result in significant impacts to important commercial or sport
fisheries. Without the opportunity to review all cutting
activities the NEPA process is being bypassed. It is essential
to allow all changes from a final EIS to be reviewed by the
public and other interested parties before harvest begins.

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Specific Comments

Page 2-13, paragraph 5. The statement "...Congress has reviewed this matter...has not deemed fit to change management direction to the Tongass National Forest." does not seem to represent the current situation in Congress. The recent action on H.R.1516 should be reported in the SIS.

Page 2-25, paragraph 2. In reference to Appendix G, the evaluation discussion of Log Transfer Facilities is unclear. The reader is left wondering if "yes" or "no" evaluations mean the sites have been examined or whether the sites meet criteria. Other evaluation criteria for Log Transfer Facilities need to be discussed in more detail, such as the timing of in-water construction. It would also be helpful if the complete guidelines recommended by the Governor's Timber Task Force were included in the appendix.

Page 2-25, Comparison of Alternatives. The reference to an Appendix has been left blank.

Page 3-16 through 3-21. Contrasted to the detailed discussion of the economic value of timber, the discussion of the economic values of commercial, subsistence, and sport fisheries, tourism, the guiding/outfitting industry, and their effect on the economy of southeast Alaska is inadequate. This section needs to be expanded considerably to reflect the economic importance of other resources of the Tongass. Tables showing the revenue generated, the jobs provided, production on an annual basis, and the long-term trends in these economic sectors should be given consideration and discussion in the document, not just timber harvest.

Page 3-17, Table 3-4. Pink salmon and their habitat requirements should be included. The Table also needs to include inland wetland and estuarine habitats as important to coho salmon.

Page 3-19. Minimum discussion has been given to the importance of aquatic and marine habitats to commercially valuable fish and shellfish species. Estuaries provide critical habitat for salmonids, herring, flatfish, crab, shrimp, and clams. Coho and sockeye are dependent upon inland wetland habitat as well as stream habitat.

The importance of streamside riparian vegetation needs to be discussed in regard to its importance in maintaining optimal water temperatures and as a source of in-stream structures which are a necessary component of salmonid rearing habitat.

II B6

Page 4-15. The evidence of "isolating timber" is given as a reason to alter a harvest unit's boundary. The isolated timber may have been required for other environmental reasons. On the ground decisions to alter cutting boundaries may circumvent the intent of the original unit design. Major changes should be covered by a public interest review.

Page 4-46, Table 4-43 and page 4-56, Table 4-49. These Tables do not show the volume in any unit to equal the assumed 29.1 MMB/acre shown in Table 4-44. If these volume estimates are less than that considered for harvest, it seems that additional volume will have to be made available from these or other unit. The difference in volume is contradictory and needs to be clarified.

Page 4-71 and 4-72. These pages are missing in our document a pages 4-61 and 4-62 are in their place.

Page 4-80. This page is blank in our document.

Page 4-55. While Analysis Area 5 was not discussed to meet timber supply needs for Phase II, we note that a log transfer facility continues to be planned for Uehk Bay. Because of the value of Uehk Bay as king crab habitat, we continue to recommend that a transfer facility for these harvest units be located elsewhere. Refer to our July 16, 1985, comments on the 1986-9 Operating Period for the Alaska Pulp Corporation Long-term Sale Area Draft SIS for our concern for habitat in Uehk Bay.

We appreciate the opportunity to comment.

Sincerely,

James W. Brooks
James W. Brooks
Acting Director, Alaska Region

IV 7

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II N6

II N2

II M1

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ANGOON TRADING CO., INC.

Box 10 - ANGOON, ALASKA 99820

#17

USDA Forest Service
P.O. Box 21628
Juneau, AK 99802-1628

10/23/88

Response to APC Phase I

Dear Jim Pierce:

After reading the Draft Supplement, Phase I, I am still uncertain as to the implications for subsistence to any of the impacted communities. Tenakee, Hoonah, Kake and Angoon will all be impacted by the proposed actions. From the analysis that you have presented it is not possible to assess those impacts.

In the Draft you suggest there will be little impact on deer habitat. How you arrived at that decision is not clear.

On page 45, ch.4, you state that "Past decisions and actions must be considered as well as their effects on future actions." I assume that you are recognizing the need to assess more than the immediate proposed actions. I fear, however, that you are not willing to look at the life of the sale. In order to understand subsistence and consequences resulting from land management decisions you must look at it in a regional sense [not VCU by VCU] and assess total cumulative impacts.

You suggest Phase II will look at specific impacts, including subsistence. To date the Forest Service has done a deplorable job in dealing with subsistence. Section 110 of ANILCA has been ignored, in fact subverted.

The past APC harvests have had a dramatic impact on limiting and changing subsistence opportunities for southeast communities. Future harvest and road building will have an even greater impact since subsistence opportunities have regionally been reduced.

I look forward to your subsistence analysis, plans for mitigation and subsistence hearing dates.

Sincerely,
K.J. Metcalf
K.J. Metcalf

cc City of Angoon
Admiralty Island Monument Committee

118

#18

Michael A Barton
Region 10 Forest Service
Box 021628
Juneau, AK 99802

Dear Mr Barton:

I am protesting the failure to address fisheries in the Pulp Corporation Long-term Timber Sale Contract Draft Supplement to the Environmental Impact Statement for the 1981-86 and 1986-90 Operating Periods.

It is shameful the fisheries have been neglected. I also observe my Appeal 1913 has also not been acted upon since it was sent to Washington DC.

Sincerely,

Richard T. Myten
Richard T. Myten
3320 Fritz Cove Rd.
Juneau, AK 99801

October 6, 1988

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REGIONAL FORESTER
FOREST SERVICE
JUNEAU ALASKA

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III

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Appendix C-2

Phase II Comments and Forest Service Responses



FOREST SERVICE RESPONSE
City of Tenakee Springs
Letter 225

225-1

See Theme Response 1 regarding timing of the SEIS and the abbreviated comment period.

225-2

The SEIS did not disregard the current legislation at the time of the SEIS. H.R. 987 had not passed before the SEISs were complete. See Theme Response 2 for information on H.R. 987. Also see our response to Comment 234-10. Chapter 1 of the Final SEIS has been updated to reflect recent changes in current legislation.

225-3

The comment points out map errors in the Phase I and Phase II Draft SEISs. Please see the Final SEIS for corrected maps for each Analysis Area and each alternative.

225-4

Alaska yellow-cedar comprises four percent of Volume Class 4 lands and one percent of Volume Class 5 lands on Baranof, Chichagof, and associated islands. It comprises five percent of Volume Class 4, two percent of Volume Class 5, and one percent of Volume Class 6 on Kuiu (Settlement Agreement, Alaska Pulp Company and United States of America: Long-Term Timber Sale Contract #12-11-010-1545). This information may be cross-referenced to the volume class tables in the DSEIS to calculate acreages of Alaska yellow-cedar.

225-5

This comment asks why more precommercial thinning has not been done. Chapter 3 describes the existing environment before it is affected by the alternatives. As stated in Chapter 3 page 12, timber has been harvested from 13,980 acres in Analysis Area 6, 13,815 of which were harvested prior to 1981. Precommercial thinning is generally conducted in second-growth stands 12 to 20 years old, but the overall stand condition ultimately determines when precommercial thinning will take place. Assuming it will take one to three years for young trees to become established on the site, the units harvested between 1968 and 1976 are eligible for precommercial thinning in the next 8 years. These condition of these units will be evaluated, and they will be prioritized according to their need for precommercial thinning. Budgets do exist for precommercial thinning expenditures, as they do for most any expenditures. By prioritizing the eligible stands, we are able to efficiently allocate our precommercial thinning budget.

Precommercial thinning to date in Analysis Area 6 is consistent with the generalized 12 to 20 year schedule. In Analysis Area 6, 901 acres have been precommercially thinned. This acreage includes 453 of the 513 acres harvested prior to 1969 and 448 of the 10,793 acres harvested between 1969 and 1976.

225-6

The comment points out that all-terrain vehicle (ATV) use was not discussed in the transportation section, and requests information on how their use may affect deer, bear and furbearer populations. The Forest Service does not have data, and is unaware of any outside data source, on ATV use in Analysis Area 6. Without accurate data, we are unable to predict the implications of ATV use on wildlife populations. We have revised FSEIS Chapter 3, Transportation, to reflect the possibility that ATV use could be occurring in Analysis Area 6.

225-7

We have verified that there are 4 intact cabins in Kadashan and we have revised the FSEIS to reflect this.

225-8

The comment questions the DSEIS statement that habitat exists in second growth. See the Final SEIS, Chapter 3, Wildlife, where we have provided additional information to resolve any confusion.

225-9

Table 3-7 in the SEIS (Analysis Area 6) presents the acres and percentages of wildlife habitats that will exist once the 1986-90 timber authorized for harvest has been harvested. Essentially, these habitats represent the existing situation that would be affected by the proposed alternatives. This is consistent with the purpose of Chapter 3, as per the CEQ-approved outline, which is to describe the affected environment. Information on the impacts, including the long-term and cumulative effects, of the proposed alternatives is presented in Chapter 4. In Analysis Area 6, see Chapter 4, pages 56-60 and Table 4-30 for information on the reasonably foreseeable, long-term and cumulative effect of timber harvest on wildlife habitat.

225-10

Deer mortality rates for the winter of 1988-89 were not available when the SEIS was written and published. These data are now available and are included in Theme Response 7.

225-11

The Forest Service disagrees that the increased number of deer killed by hunters is directly attributable to increased road access. The number of deer killed by hunters is due to a several variables, including bag limits and hunting seasons established by ADF&G. These actions are independent of this project plan. The ADF&G manages wildlife and regulates hunting. See Theme Response 7 for additional general information on the Sitka black-tailed deer.

225-12

In reference to Chapter 3, the comment requests information on the effects of road building and logging camps on brown bears. The purpose of Chapter 3 is to describe the existing situation in the area to be affected by the proposed action. Please refer to Chapter 4, Wildlife, page 4-18 (Analysis Area 6) for information on the effects of the proposed action alternatives on brown bears. Also see Theme Response 3 for additional general information on brown bear viability.

225-13

The Forest Service agrees that tourism is an economic forest use and should be included in the SEIS. See the FSEISs, Chapter 3, Socioeconomics sections. This sections has been revised to include information on tourism as part of the study area economy.

225-14

See the glossary of the Phase II Draft SEIS for the Forest Service's definition of streamside riparian habitat. Riparian habitat does include secondary streams.

To correct our error in calculating the percentage of streamside riparian habitat affected in VCU 238 (Chapter 4, Table 4-8), the acreage has been reduced. These alternatives will affect 12 percent of the streamside riparian habitat rather than 44 percent. The revised Table 4-8 is shown in the Final SEIS, along with revised text.

225-15

Your comment misinterprets the statement in Chapter 4, page 16: "Timber harvest could affect deer population numbers during severe winters, at least until suitable vegetation is re-established." This statement, when taken in context with the paragraph, states that the Forest Service recognizes that harvest of the beach fringe habitat could affect deer populations during severe winters. Table 4-6 indicates that Alternative 5, which proposes to harvest 287 acres in beach fringe habitat, would affect only 5 percent of that habitat type in Analysis Area 6. The other alternatives would affect less than 1 percent of this habitat type.

As per the CEQ approved outline, long-term and cumulative effects on wildlife habitats, including effects of the planned 100-year rotation, are discussed in the later part of Chapter 4 (pages 56-60 of the Draft SEIS for Analysis Area 6).

225-16

The Forest Service disagrees that the Freshwater Bay logging camp is the reason for the declining brown bear population on northeast Chichagof Island. The Forest Service manages the Forest, in part, for wildlife habitats. The ADF&G, however, manages wildlife populations and establishes hunting regulations. Bag limits and hunting seasons schedules play an important part in brown bear population management, and are independent of this Forest

Service project plan. See Theme Response 3 for additional general information on brown bear viability. Also see the revised Wildlife and Subsistence sections of the Final SEIS for our final evaluation of these resources based on effects analysis and public hearing response.

225-17

Both the NMFS policy (National Marine Fisheries Service 1988) and AHMU handbook (USDA Forest Service 1986a) use the same stream classification system. We are unfamiliar with any controversy in this area.

Fish Passage Trade-off Evaluation is prescribed for Class I streams and Class II streams with gradients steeper than four percent. Fish passage is provided on all Class II streams with 4 percent gradient or less. Fish Passage Trade-off Evaluation does not mean that fish habitat "can and will be jeopardized to minimize the cost of road construction", as interpreted by the commentator. It simply means that, in those streams subject to trade-off evaluation, the fish passage will only be constructed if its cost is less than the total benefit of the fish habitat above the crossing. The value of the fish habitat is a calculated fixed value and it is not possible to lessen the value of the habitat to justify not providing passage. The purpose of the evaluation is to allow the fisheries biologist to efficiently determine what type of fish passage is suited to different streams throughout the Forest. The AHMU policy also provides for flexibility and equity, in that streams with unique qualities such as unusually productive habitat, an endemic species, or popularity for fishing, are assigned additional value at the discretion of the fisheries biologist.

225-18

Aquatic Habitat Management prescriptions apply to Class I, II, and III streams (USDA Forest Service 1986a). All streams are evaluated in analyzing the impacts of harvest and road building activities on fish production.

225-19

The comment requests information on the long-term, cumulative effects of extensive clearcutting and road-building. As per the CEQ-approved outline, the first half of Chapter 4 addresses the affects of the alternatives through this planning period (1990). This evaluation includes the effects of past harvest activities as well as activities proposed in the alternatives. The second half of Chapter 4, beginning on page 49, addresses the reasonably foreseeable, long-term and cumulative effects of the alternatives. See the Final SEIS for our final evaluation of long-term and cumulative effects on subsistence, considering information gathered from public comments and at the Subsistence Hearings. Also see Theme Response 5.

225-20

We assume the comment is referring to maps showing projections through 2011 and 2080. These maps are part of the Multi-Entry Layout Process (MELP) databases and are available for public review as part of the Planning Record in the Sitka (Analysis Areas 2,3, and 6) and Petersburg (Analysis Area 12) Area Offices. The dynamic nature of these data make their reproduction impractical. Furthermore, publication of these maps in the SEIS would not be consistent with CEQ guidelines (1500.4, Reduction of Paperwork).

Also see Theme Response 8 for additional information on the SEIS Planning Record display.

225-21

First, the comment misquotes the SEIS. The complete sentence from the SEIS reads as follows: "Although log quality in second-growth stands is expected to be lower than in mature and overmature stands, even on sites that have been precommercially thinned, total yield per acre is expected to be higher in second-growth stands."

The commentator makes the statement that "converting old growth which contains large dimension high quality trees with second growth effectively eliminates any chance of developing a long-term, sustainable timber products industry in Southeast Alaska." Any market, including the timber market in Southeast Alaska, requires the use of raw materials. In the forest products market, the raw material, timber, is renewable and can therefore be managed on a sustained yield basis.

In Southeast Alaska the Forest Service is in the first rotation, which is scheduled to be complete in 2080. Because we are still in the first rotation, the majority of the raw material base is in mature and overmature stands. At the end of the first rotation, the raw material base will be second-growth stands. It is a matter of circumstance that the quality of second-growth timber is lower than timber from mature and overmature stands. It is not the quality of the logs that will determine whether the forest products industry will be sustained in Southeast Alaska; rather, it will be determined by the future market for forest products.

Without the raw material, there can be no timber products industry in Southeast Alaska now or in the future. It is understandable why "even the pulp mills have shown little interest in cutting second growth." The forest products industry in Southeast Alaska cannot use second-growth timber at this time because the second-growth stands are not mature enough to be harvested commercially. At the end of the first rotation, there will be second-growth timber suitable for harvest. In fact, after the first rotation, use of second-growth timber will be required to sustain the timber products industry in Southeast Alaska. The market for timber products after the first rotation will determine whether the Southeast Alaska timber products industry will continue. Even those in the timber industry cannot predict what the market will be in 100 years.

Although timber is a renewable resource, the Forest Service recognizes the fact that mature and overmature stands contain other values besides timber, such as old growth habitat, and that these stands are only renewable over a long period of time. In response to this, the Forest Service has set aside a percentage of the mature and overmature stands for preservation in Wilderness or in extended rotations of 120 to 250 years to ensure that these values are sustained.

The Forest Service disagrees with the statement that "more than half of the acres containing the highest volume have already been cut." Figure 2-9 (Analysis Area 6) shows that the cumulative harvest, including the proposed harvest of the alternatives, would result in harvest of less than six percent of Volume Class 6 and less than one percent of Volume Class 7 commercial forest lands (CFL) under any of the alternatives.

In response to the comment that the Forest Service harvests timber at a loss of \$50 million per year, see the FSEIS Consolidated Appendix, Volume III, K, which shows that the Tongass National Forest "lost" \$1.885 million from 396,318 MBF of timber harvest in 1988.

225-22

We recognize in the SEIS (see Analysis Area 6, Chapter 4, page 76, #9) that precommercial thinning is relatively new in Southeast Alaska and long-term data on the effectiveness of precommercial thinning here do not exist. The Forest Service precommercially thins second growth stands in an attempt to provide some of the benefits of old growth habitat conditions. In response to your comment that "very little thinning is done anyway", see our response to Comment 225-5.

We also recognize that precommercial thinning cannot replace old-growth habitat conditions. Therefore, our plans include areas to be managed for old-growth habitat conditions. As an example, in VCU 235, (Figure 2-5a in the Draft SEIS Analysis Area 6) areas are identified which were prescribed for old-growth habitat management in the 1986-90 FEIS.

225-23

The comment claims that our assumptions on long-term and cumulative effects of fisheries are unsubstantiated. Because timber has only recently become a major industry in Southeast Alaska, little information is available on the long-term effects of timber harvest on fisheries in Southeast Alaska. However, the Forest Service, adheres to policies set forth in the Aquatic Habitat Management Handbook (USDA Forest Service 1986a), which provides for long-term protection of the fisheries resource based on available scientific knowledge. The 1989 salmon catch in Southeast Alaska was one of the highest recorded in the State. Given the time period between hatch and return, this demonstrates that fisheries have flourished under recent timber harvest levels.

As per the CEQ-approved outline, the affects of harvest activities during the planning period (1989-90) are discussed in the first part of Chapter 4. See Chapter 4, page 20-26 for discussion on short term fisheries impacts resulting from the alternatives.

225-24

The commentator seeks information on current recreational use of the road along Trap Bay in Chapter 4. The discussion in the later half of Chapter 4 is devoted to the long-term and cumulative effects of the project. See Chapter 3, pages 42-44 for a discussion of the existing recreation situation.

225-25

The purpose of the Unavoidable, Adverse Environmental Effects section is to identify those impacts that would be expected to occur under any of the project alternatives and with the proposed mitigation measures. Some adverse conditions may occur even under the No-Action Alternative. For example, "a 20 year natural stand is also difficult to walk through". The Forest Service continues to hold the opinion that unavoidable adverse impacts are usually short-term. Industrial activity, including harvest of timber, usually result in some unavoidable adverse impacts, at least through the duration of harvest activity. Our basis for this opinion is that the forest is a renewable resource which begins to replenish itself once harvest activity has ended. Significant short- and long-term impacts have been avoided through interdisciplinary planning of roads and harvest units, and application of mitigation measures.

225-26

The purpose of the "Irreversible and Irretrievable Commitments of Resources" section is to discuss the use of nonrenewable resources of the alternatives. Under all of the action alternative, some mature and overmature stands would be removed. Mature and overmature stands are renewable and will replace themselves should harvest discontinue. The Forest Service does recognize the old growth habitat and recreation values associated with mature and overmature stands and has set aside some of this resource to be preserved in Wilderness and replenished in extended rotations. Because mature and overmature forest stands are considered a renewable resource, however, their impact from the alternatives is discussed in Chapter 4, pages 2-6 and 51-54 (Analysis Area 6).

225-27

We disagree that the SEIS has failed to serve its purpose. The purpose of the SEIS is described in Chapter 1, page 15 (Analysis Area 6).

In preparing the SEIS the Forest Service has used the available data to conduct professional interdisciplinary analyses and determine the best known site-specific mitigation measures (see Unit Cards in Appendix A-1 in Phase II Final SEIS). We have honestly addressed the environmental impacts of Alternatives.

225-28

The Forest Service disagrees that mitigation of significant adverse impacts is inadequate. To demonstrate that the Forest Service's interdisciplinary staff have developed site-specific mitigation measures for each unit, we have included all of the Unit Cards in Appendix A-1 of the FSEIS.

001-03619-020\USFSRESP.225

CITY OF TENAKEE SPRINGS

ROBERT P. WAGNER
MAYOR

ADMINISTRATION
(907) 736-2221

August 3, 1989

James Pierce
USDA Forest Service
Supplemental Environmental Impact Statement
P.O. Box 21628
Juneau, AK 99802-1628

Dear Mr. Pierce:

In response to your request, we offer the attached comments relative to the "Draft Supplement to the Environmental Impact Statements for the 1981-86 and 1986-91 Operating Periods (Phase II) for the Alaska Pulp Corporation Long Term Timber Sale Contract.

We appreciate the opportunity to participate in the U.S. Forest Service planning process.

Sincerely,

City of Tenakee Springs



Robert P. Wagner
Mayor

RPW:RAP

cc: Bart Koehler, Executive Director SEACC
Tenakee Springs Fish and Game Board
Ben Grussendorf, Alaska State Representative
Richard I. Eliason, Alaska State Senator

RECEIVED

5 Aug 89

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Mayor Bm.

City of Tenakee Springs
By

City of Tenakee Springs
By

Here is the Response
to the BEIS.

Molly Kemp wrote the
specific comments, to which I
added a few suggestions, before
the final version was composed.

I also wrote the introduction
and closing.

You may wish to provide
copies to the concerned Congressional
Committees, SEAC etc.

Sincerely,
Bm

225-1 The City of Tenakee Springs offers this response for the record to the Draft Supplemental Environmental Impact Statement for the Alaska Pulp Corporation's Long Term Timber Sales Contract.

The timing for this document could not have been worse. Massive planning documents invariably appear in the summer when there is the least time for those most affected to respond other examples are the 84-89 LPK SEIS, the ongoing subsistence hearings, the 86-90 ALP EIS and the original 84-90 LPK EIS. After years of subsidized, inflated budgets, the Forest Service cannot attribute the timing of the release of these documents to time and staff constraints. At best, it demonstrates inept management by the Forest Service, at worst, purposeful design.

The initially abbreviated comment period was impossibly limited, an outrageous attempt by the Forest Service to curtail or eliminate public review and participation. Little wonder the residents of many small communities view the activities of the Forest Service with suspicion and distrust.

Much of the intimidating bulk of the documents stems from repetition. One must look hard to find the meat on this bone. Multitudinous graphs, charts and maps are used to cloak promotion of single industry bias in the guise of respectable, wise management. Image prevails over substance and quantity replaces quality.

225-2 The most obvious comment on the overall document is the blatant disregard it displays for current legislation and public opinion. Alternatives 4,5,6 and 7 show road construction and clearcutting in VCU 237, Trap Bay. Alternatives 5,6 and 7 show road construction and logging in VCU 235, Kadashan, while Alternative 4 shows completion of the Kadashan road. Road construction means future logging.

In 1988 341 members of the US House of Representatives expressed their collective opinion by voting for the Tongass Timber Reform Act, which specifically protected those areas from clearcutting. On July 13, 1989, the House of Representatives passed a stronger version of the Tongass Timber Reform Act by an even greater majority. Another bill before the Senate also provides protection for these areas. Numerous Alaskan groups and communities have long been on record supporting the provisions of the Tongass Timber Reform Act. The recent Southeast Conference Tongass proposal specifically mentions both Kadashan and Trap Bay as critical fish and wildlife areas deserving of permanent protection from logging. The Governor of Alaska has

- 225-2 endorsed the Southeast Conference proposal, and with it,
Cont. permanent protection for Kadashan and Trap Bay.

The Draft SEIS indicates that Alternative 4 is the USFS preferred alternative "pending public comment". The public is left to wonder just how much comment, and from whom, is necessary to make a difference in Forest Service management decisions.

It is apparent that instead of an unbiased re-examination of management alternatives in these areas, this document was prepared as justification to "get out the cut". Multiple-use management and sustained yield of all forest resources must take a back seat to the dictates of the long term contract holder, AFC.

- 225-2 The City of Tenakee Springs must reiterate the position it has held for many years, that of opposition to any road construction or logging in Kadashan or Trap Bay.

The Draft SEIS does not satisfy the concerns of those who rely on the full range of resource values that currently exists in the Tongass and specifically in these areas.

The remainder of this response, while not inclusive by any means, will highlight some of the egregious errors, omissions, and bias displayed by the SEIS.

- 225-3 The map errors noted in the City of Tenakee response to Phase I of the SEIS have not been corrected. To quote:

"The road indicated west of Grave Island appears to be the survey boundary of the original Tenakee Townsite (U.S.S. 1418).

The 'road' indicated west of Columbia Point (describing a lazy Y) was put to bed following logging operations and the land selected by the State for a homesite subdivision. A section of it has been dedicated as part of the trail system. Another section, by the way ran through private property (HES 239) under a private contractual agreement long since expired.

The short 'road' indicated running upland just east of Columbia Cove was (and is) nothing more than a ditch created by dragging logs down the mountain to a sea-anchored A-Frame. Ah well, in the eyes of the beholder."

These comments refer to the volume on Analysis Area 6:

- 225-4 c3p8 "Alaska-cedar occurs in limited numbers in stands throughout the AFC Contract area and is a highly valued commercial species."The SEIS should mention the actual value of yellow cedar, when it is possible to obtain it at all.

- 225-4 Cont.** The SEIS doesn't acknowledge the extremely slow growth of yellow cedar, and the reality that yellow cedar, like the large diameter trees of hemlock and spruce, is not a renewable resource in terms of current management.

The valuable large dimension, tight grain, knot-free wood currently available in "over-mature" old growth will NOT exist in second-growth on a 100-year rotation.

- 225-5** c3p12 Although precommercial thinning is of dubious value as far as wildlife habitat is concerned, no one questions its usefulness in producing better quality second growth trees. Table 3-2 shows the number of acres cut in Analysis Area 6 (13,815 prior to 1981). The draft SEIS states that 901 acres have been thinned thus far. Where are the plans for "intensive management" of those areas already dedicated to timber harvest? In Tongass management, intensive management evidently means "cut it and leave it".

- 225-6** c3p14 The first paragraph under Roads states that " due to the high cost of transporting a vehicle, virtually no private vehicles (other than logging company vehicles) are found in Analysis area 6." This statement ignores the proliferation of all-terrain vehicles which are highly portable and very numerous. "Company owned vehicles" as well as individually owned ones are used for hunting in areas adjacent to logging trucks, and have already been used on the Kadashan Road. The implications of vehicle access on deer bear and furbearer populations are real and serious.

- 225-7** c3p16 This section mentions seven agency cabins in Kadashan. There are two adjacent Fish and Game cabins, and two belonging to the Forest Sciences Laboratory. There don't appear to be seven without counting toolsheds.

- 225-8** c3p18 Wildlife: "It is important to recognize that when trees are harvested from a habitat, a habitat still exists. However, it is converted to second growth timber management and does not have the same conditions that previously existed." How reassuring! Although the essential winter habitat for deer and other species has been eliminated, it will be replaced by habitat for...what?

- 225-9** c3p22 The second paragraph on this page is indicative of a consistent problem with this document, and with Tongass management as a whole. It proudly describes percentage of deer winter range that will remain after the timber harvest planned through 1990. What will happen after 1990 is left to the imagination, while it is exactly the long-term, cumulative effects that are the cause of the most concern.

- 225-10** c3p26 Sitka blacktail deer: "ADF&G reports that deer population numbers are at a high level." High deer

- 225-10** populations have been a function of successive mild
Cont. winters. There is no mention of the effect of that series of mild winters, nor of the deer mortality associated with the moderate winter of 1988-89.
- 225-11** The huge increase in number of deer killed by hunters regionwide is directly attributable to the increase in road access.
- It seems inevitable that at some point the increased road-hunting pressure and winter habitat destruction combined with a deep snow winter will result in a calamitous crash in deer populations.
- 225-12** c3p29 Brown bear: This section describes the relatively healthy brown bear population in Analysis area 6, without making the obvious comparison with Analysis Area 3, Freshwater-Whitestone. Last year's emergency closure of bear hunting on Northeast Chichagof Island reveals the impact of road building and logging camps on brown bear populations. A transparent attempt is made to gloss over the effect of reopening the Corner Bay camp: "There are plans to reactivate the camp for logging activities, however the use will remain seasonal." In case it needs to be mentioned, bear activity is seasonal too, encompassing exactly the same seasons as camp operation!
- 225-13** c3p56 Economic uses of the Forest: "The proposed action will affect three major economic uses of the forest: timber harvesting, sport and commercial harvest of salmon, and hunting for Sitka blacktail deer by recreational and subsistence users." What about tourism? Tourism is Southeast Alaska's second largest industry and its fastest growing one. The vast majority of tourists come to Southeast Alaska, and to Tenakee Inlet, to enjoy the stunning natural beauty and unparalleled opportunity to observe wildlife. Kadashan is justly famous for its concentration of brown bears and other wildlife, and people from all over the world have made it a destination for those reasons. Trap Bay is a spectacularly beautiful area, and a visitor's introduction to the south side of Tenakee Inlet. (East Point, the northern portal of Tenakee Inlet, is now and forever defaced by clearcuts.)
- 225-14** Chapter 4 Environmental Consequences: In this section we find many, many tables. It's very easy not to look at the tables at all, or to just glance at the "Total" figures. However this is misleading. For example, table 4-8 pertains to Streamside Riparian Habitat Affected, by Alternative. The total reflects an average percentage over all areas, so that four VCU's with "0" and one with "44%" average out to 4% of riparian habitat affected which sounds very nice, but is not really much consolation to the fish in the one area that has been 44% logged!

- 225-14** Just what does the USFS consider to be Riparian habitat?
Cont. Does it equal 100 meters from the stream? Does it include the secondary tributaries that are vital coho rearing habitat?
- 225-15** c4p16 Blacktail deer again. Here we find the statement that "Timber harvest could affect deer population numbers during severe winters, at least until suitable vegetation is re-established." UNDER PLANNED 100 YEAR ROTATION, DEER WINTER HABITAT WILL NEVER BE RE-ESTABLISHED.
- c4p17 "Only minor effects on Sitka Black-tailed deer are expected from the proposed harvest activities due to the following reasons: Minor reduction in deer habitat carrying capacity. Large acreage of deer habitat remaining". Again, it is not just the activities of this operating plan for the one year that remains that we are concerned about, but the cumulative effects of ALL logging and roadbuilding.
- 225-16** c4p18 It is easy to say that proposed action "should result in no major effects on the brown bear population" but it is hard to ignore the reality of plummeting bear populations on NE Chichagof associated with Freshwater Bay logging camp and road access to the once secure "refugia" at the heart of the island. The Forest Service ignores facts that contradict its claims.
- 225-17** c4p21 Fisheries: "Standard AHMU prescriptions are described that will protect water quality and productivity of fish habitat" according to classification of streams. There is a great deal of controversy over stream classification, and the implication is that even "Class I " streams are subject to "economic analysis" (Fish Passage Trade-Off Evaluation). This means that fish habitat can and will be jeopardized to minimize the cost of road construction.
- 225-18** c4p23 A conclusion is reached that proposed activities will have minimal effects on fish production, because the "amount of habitat affected is relatively small." Is this based only on the main channels? Studies in Trap Bay clearly demonstrated that coho do not rear or spawn to any extent in main river channels. Very, very small streams are critical coho habitat.
- 225-19** c4p45 Subsistence: The assessment of minimal impacts on subsistence resources conflicts with the perceptions and opinions of the residents of this community and the Alaska Department of Fish and Game. To address only the actions planned for one year ignores the long term, cumulative effects of extensive clearcutting and road-building.

Subsistence issues will be addressed more extensively by individuals at the August 10 Subsistence hearing.

225-20 C4p49 Reasonably Foreseeable, Longterm and Cumulative Effects:

In a document fairly bursting with photographs, charts, and maps, where are THESE maps?? If the statements made in this section can be made with such assurance, why can't the public see maps showing the full scale of what is planned for the "Reasonable Foreseeable" future?

225-21 C4p53 Second growth stands: Tucked away in the middle of this document is the admission that "log quality in second-growth stands is expected to be lower than in mature and overmature stands, even on sites that have been precommercially thinned." Converting old growth which containing large dimension high quality trees with second growth effectively eliminates any chance of developing a long-term, sustainable timber products industry in Southeast Alaska. Even the pulp mills have shown little interest in cutting second growth! More than half of the acres containing the highest volume have already been cut. To continue this headlong rush to eliminate irreplaceable resources AT A LOSS OF OVER \$50 MILLION A YEAR is absolutely unconscionable.

225-22 c4p57 Wildlife habitats: "Precommercial thinning helps to balance the forage and cover values". This is far from being accepted, and very little thinning is done anyway.

225-23 c4p60 Fisheries/Hydrology: This entire section is characterized by words that reveal just how little is known about the long term effects of large scale clearcutting on streams and fisheries habitat- words like "should maintain", "impacts are not anticipated", "current assumptions", "available evidence", "very little data available". It is incredible that from unsubstantiated assumptions the Forest Service can conclude that effects will be minimal. The risks are unacceptable! At risk: a healthy, truly renewable fishing industry that is a mainstay of the Southeast Alaska economy. Conducting very large scale experiments on this irreplaceable resource to continue a program that is losing \$50 million dollars a year is patently absurd.

c4p62 Streamside disturbance: Evidently these statements are based on calculations of total effect over 120 years. What good does that do if salmon are unable to spawn the first two years? Where will the NEXT year class come from?

225-6 c4p66 Recreation Kadashan - "visitation will increase from Corner Bay and Sitkoh Bay." This is true, and contradicts previous statements in this document about the lack of privately owned vehicles preventing much use of the roads.

225-24 VCU 237 Trap Bay "The road along Trap Bay may provide excellent opportunities for roadside recreation....."

225-24 The document dares not compare what 'might be' with what now
Cont. exists.

225-25 c4c74 Unavoidable Adverse Environmental Effects: This section devotes one paragraph to listing "some local unavoidable environmental effects" including "increased soil erosion and soil productivity loss beyond naturally occurring levels; local and short term reductions in water and air quality; alteration of natural landscapes; increased competition for subsistence resources; loss of primitive character of roadless areas that are entered; loss of opportunities for wilderness designation of areas being entered; and the disturbance or loss of some wildlife habitat."

The document then blithely states: "The unavoidable effects are expected to be short-term, (usually less than two years)." TWO YEARS?? How can the Forest Service make a statement like that? Hasn't anyone in the Forest Service tried to walk through a 20 year old clearcut? Management of the Tongass may be short-sighted, but the effects are NOT short-term.

225-26 Irreversible and Irretrievable Commitments of Resources: This section mentions use of rock, and the "loss of opportunity" to cut trees if the no-action alternative is selected. What about the "commitment" of 800 year old trees, and the exceptional wood they contain? What about the "commitment" of high volume old growth habitat to second growth on a 100 year rotation? This is possibly the most offensive paragraph in this whole volume, and supports our contention that the Forest Service cannot see the forest for the trees.

c4p76 Mitigation Measures. This section lists measures that are supposedly going to compensate for any "Unavoidable Adverse Environmental Effects" that should happen to linger beyond 2 years.

3. "Providing trail signs to direct recreational traffic along trails affected by timber harvest activities." This is poor consolation indeed, akin to seeing a lone standing street sign in a news photograph of some mid-western town tragically levelled by a tornado.

225-5 6. "scheduling harvested stands for precommercial thinning between 10 and 15 years of age. This becoming a normal practice if budgets are not constrained." Where? There is no mention of such activity in Analysis Area 6 in this SEIS, although the Corner Bay area certainly boasts an abundance of 10-15 year old clearcuts. Budget constraints do not appear to hamper expenditures for road construction.

- 225-22 9."apply state-of-the-art second growth management techniques for areas of harvested deer winter range.....it is still premature to judge their effectiveness." The best "mitigation measure" for deer winter range is to leave a sufficient amount of it alone!

15. "burning units" The Forest Service has been successful in starting two forest fires in Southeast Alaska so far, which burnt considerably more acreage than intended (Kake Lake). The longterm effects of burning in Southeast Alaska are still unknown, and the questionable benefit of reducing "initial color contrasts" make this a dangerous practice.

CONCLUSION

- 225-27 The Draft Supplemental Environmental Impact Statement falls far short of its purpose. It fails to honestly address the environmental impacts resulting from the various alternatives reviewed.
- 225-28 Whether by design or ineptitude, contention is confused with fact and supposition with supportable evidence. Hopelessly inadequate mitigation measures are recommended in the absence of sound planning and wise management. Management decisions are based on "current assumptions", "very little data", and cutting practices too" premature to judge".
- 225-3 The SEIS presents inaccurate maps of Tenakee Springs, portraying a road system that does not exist. These errors were noted in our response to the Phase I document. Their re-publication demonstrates the lack of concern for the responses the Forest Service solicits.
- 225-2 The cutting and roading plans proposed by the Forest Service in the SEIS for Trap Bay and Kadashan fly in the face of Congressional intent and demonstrate an arrogant disregard for public opinion. These are the same managers who ask to postpone any legislation pending TLMP review.

Until the early and mid-50's the Forest Service was peopled by a dedicated staff which worked long and hard to enhance the National Forests, who took justified pride in work well done. As the old breed retired, they were replaced by new managers of a different stripe, attuned to a different call "get out the cut, no matter the cost".

We ask the Forest Service to give equal consideration to the City of Tenakee Springs' valid concerns and justified complaints, and to give long, thoughtful consideration to making the Forest Service an agency in which the public can take confidence and in which Gifford Pinchot would again take pride.

FOREST SERVICE RESPONSE

The Southeast Alaska Natural Resources Center

Letter No. 230

230-1

The Forest Service disagrees that the SEIS is programmatic and not site specific. See Theme Response 6. The purpose of Phase II is to break the contract area down into smaller analysis areas to provide for more site-specific analysis. Each of the Phase II SEIS documents describes the actions and potential impacts for one of four areas requiring further site-specific study. The analysis areas range from approximately 170,000 acres in Analysis Area 6 to approximately 300,000 acres in Analysis Area 12. The analysis areas are further divided into Value Comparison Units (VCUs) which average about 17,500 acres each. The affected environment was described and the impacts of the alternatives evaluated for each VCU in the analysis area. Mitigation measures were established for each harvest unit and associated roads proposed by the alternatives (see Unit Cards, FSEIS Appendix A-1). The acreage of all four analysis areas studied in the Phase II evaluation totals not 2 million acres, but about 960,000.

See Appendix B-1 in the Draft SEIS for Analysis Area 6, responses to Concerns 5, 6, and 7, for an explanation of how the analysis area boundaries were delineated and why Analysis Areas 2, 3, 6, and 12 were chosen for further study. See Chapter 1, Purpose and Need, and DSEIS Appendix B-1 (AA6), responses to Concerns 1 through 4 for information on the range of alternatives considered. In addition, Theme Response 6 provides information on the Forest Service's planning process and range of alternatives analyzed.

230-2

We disagree with your criticism of the alternatives developed for the SEIS. These alternatives are derived from the alternatives evaluated in the Phase I Draft SEIS, the APC 1981-86 and 1986-90 EISs and comments thereon. The Phase I SEIS adjusted the alternatives presented in the APC 1986-90 EIS. The Phase II SEIS, in turn, evaluated and adjusted the units adjusted in the Phase I SEIS to form Phase II SEIS alternatives. These alternatives respond to the issues described in Chapter 1 and the management objectives and logistical constraints described in Chapter 2 of each document, as well as public comment received on prior EIS documents. Further discussion on the range of alternatives and how they relate to the Phase I alternatives is presented under Theme Response 6.

230-3

This comment, concerning the layout of logging units and roads not being finalized until the FSEIS and ROD, appears to address the Forest Service's approach to the EIS and SEIS process. The SEIS process is part of the Forest Service's project implementation planning. The alternatives, impact analyses, and mitigation measures presented in the Phase II Draft SEIS documents are site specific. The harvest activities planned are described in Chapter 2 of each document, as well as in the Unit Cards, included as Appendix C-1. (We have included a complete set of Unit Cards in the Phase II Final SEIS, Appendix A-1).

Potential for change of Unit Cards remains part of an environmentally responsive monitoring and implementation process for mitigation of impacts and other purposes. Changes may also occur to salvage blowdown timber, replacing it with other volume that was previously planned for harvest, or as a result of legislation deferring areas for further study or conveying lands from Federal to private or Corporation ownership. Changes may result in a shift in the unit boundary or road, deletion of units, or addition of units. As stated in the ROD, changes in the Unit Cards are subject to the NEPA evaluation process. See Theme Response 6 for further discussion on the planning process and how it complies with NEPA.

230-4

This comment requests that the SEIS display all timber management, harvesting, and road construction options considered in the sale area; evidence supporting the selected locations of harvest units and roads; and the economic and environmental effects of the preferred alternative as compared to other options.

See Chapter 2 for a site-specific description of the Phase II alternatives and how they were developed. See Draft SEIS Appendix B-1 (AA6), and FSEIS Consolidated Appendix, Volume III, F, responses to Concerns 1-4 and pages 21-31 for additional information on formulation of the alternatives. The Unit Cards, included as Appendix A-1 in the Final SEIS (C-1 in the Draft), show unit boundaries and road locations, specific impact concerns, and mitigation measures and their effectiveness. Theme Response 6 presents additional information on the range of alternatives analyzed and on the No Action/Current Direction Alternative.

The purpose of the SEIS and the ROD is to summarize this type of information. It is impractical, and inconsistent with NEPA, for an agency to publish every piece of evidence supporting its development of the alternatives and impacts analyses. This information is, however, available for public review as part of the Planning Record in the Sitka office for Analysis Areas 2, 3, and 6, and in Petersburg for Analysis Area 12. The SEIS does summarize this information. Chapter 2 for each document describes the management objectives and administrative constraints that were used to formulate the alternatives. Chapter 4 describes the impacts of the alternatives and includes scientific references and descriptions of the methods the Forest Service used to evaluate the alternatives.

The economic and environmental consequences are described in detail in Chapter 4 of the SEIS. In addition, the consequences of the alternatives are summarized and compared in the second part of Chapter 2, Comparison of the Alternatives.

230-5

With regard to your concern about monitoring, the Record of Decision (ROD) explains that all actions authorized by the ROD will be monitored in order to ensure that they are carried out as planned. Actions which are modified from the plan will be subject to consideration by the Forest Supervisor and the NEPA process. The ROD also outlines the processes of

Implementation, Effectiveness, and Validation Monitoring. A monitoring plan for the 1986-90 EIS was included in the Draft SEIS and is also included in Consolidated Appendix, Volume III, J, in the Final SEIS.

230-6

We disagree with your suggestion that it was inappropriate to evaluate the alternatives within the parameters of meeting the long-term timber sale contracts, and that the SEIS was programmatic. Satisfying the APC contract requirements is a valid action for the project covered by this SEIS. Please see the SEIS Chapter 1, Purpose and Need, and Appendix B-1 (AA6), responses to Concerns 1 through 4. NEPA does not require that an EIS be labelled "site-specific" to be adequate. According to current case law, a "programmatic" EIS can have adequate site-specific content to meet NEPA requirements for project clearance. Nevertheless, the Phase II SEIS does lay out unit and road alternatives in the Forest. The volume contained in the units proposed is constrained by the purpose of the EIS: to meet contractual obligations with APC. Even if APC does not harvest all of the units proposed, the site-specific impacts of their harvest is evaluated in the SEIS. Also see Theme Response 4 for more information on the site-specificity requirements of the SEIS and how these requirements are met.

230-7

Your comment suggests that because APC has cut only 48 percent of the timber it has requested from the Forest Service, it would be more relevant for the SEIS to evaluate the impacts of anticipated harvest levels, rather than the levels called for in the long-term contracts.

The purpose of the action for which this SEIS has been prepared is to satisfy APC contractual requirements, not to predict APC's ability or actions. Actual site-specific impacts may be less than the total projected in the SEIS if, for instance, all projected harvest does not occur. This does not, however, render invalid the projected impacts of meeting the contract requirements, nor does it make the prediction of impacts from past performance "impossible". APC's ability to perform is a function of the market value for forest products and their commitment of logging equipment and personnel. For example, APC could bring in additional equipment and personnel and increase their current logging capacity. Also see our response to Comment 230-6.

230-8

For corrections of the discrepancies in Phase I and Phase II maps of the Kook Lake Plan View VCU 239, please see the maps included with the Phase II Final SEIS documents. A complete set of Unit Cards with maps are also included with the Final Phase II SEIS in Appendix A-1.

230-9

We strongly disagree with your claim that the Forest Service "circumvented the public involvement process". The Forest Service adequately solicited and considered the concerns of the public and agencies throughout the SEIS process. See Theme Response 1.

In the Phase II SEIS, the Forest Service provided responses to those Phase I public and agency comments pertaining to the Phase II analysis (See Draft SEIS Appendix B-1 for Analysis Areas 2 and 6, and Appendix B-3 for Analysis Areas 3 and 12). These responses were aimed at helping readers better understand the Phase II document. All of the Phase I comments will be addressed in the Final Phase I SEIS, as is required by NEPA.

Information on the process and scope of the SEIS, and the relationship among the Phase II, the Phase I and other documents, is presented in Chapter 1 of the Phase II SEIS.

230-10

We explain why modification of the APC Long-Term Timber Sale Contract as suggested is not a reasonable alternative for the SEIS are provided in Appendix B-1 (AA6), Concerns 1-4.

230-11

Your comment points out that the SEIS analysis areas are larger than those used in the TLMP. The SEIS analysis area is identified as the "relevant geographic area" for analysis, as allowed by TLMP (1986d). Draft SEIS Appendix B-1 (AA6), Concern 5, explains how and why the analysis area boundaries were selected. In summary, alternatives were presented by analysis area to maintain continuity in transportation systems and administrative site such as logging camps and log transfer facilities. The analysis areas encompass common transportation infrastructure and facilities and administrative sites that will be used intermittently throughout the rotation. The VCU boundaries and designations have been maintained, allowing the SEIS to be tiered to previous planning documents.

An SEIS "analysis area" is a combination of one or more TLMP "management areas". Nevertheless, the formation of analysis areas in the SEIS does not make the SEIS less site-specific. Impact analysis of the alternatives was conducted by VCU. Mitigation measures were established for each harvest unit and the roads associated with those units (see Unit Cards, Final SEIS Appendix A-1).

Socioeconomic and subsistence impacts are more logically discussed by analysis area than by VCU or management area. Those subsistence users generally use more than one VCU as their subsistence resource. Similarly, socioeconomic effects are felt over a larger area than a VCU or management area. Apparently some of those reviewing the documents found the outline for the Subsistence and Socioeconomic sections used in the Phase II Draft SEISs confusing.

In response to this confusion, we have the revised Chapter 4 Subsistence and Socioeconomics sections and included an evaluation of resource impacts by VCU for these resources as well.

230-12

This comment on the Forest Service's planning process does not appear to be relevant to the Phase II document and the current situation, but pertains to the purpose of the original EISs and the Phase I document. We disagree with the interpretation presented in these comments. Please see Theme Response 6 for an explanation of the planning process, the relationship among the various planning documents, and how the supplement process is consistent with NEPA and TLMP.

230-13

While it is true that 65 percent of the operable CFL in VCU 402 will theoretically be available for harvest, logistical constraints and concern for the protection of other resources led us to the decision not to consider the removal of additional timber volume from this VCU in this SEIS.

Virtually all of the existing roads in VCU 420 are contained within two watersheds, Brown's Creek and Rowan's Creek. Both are important fish streams, and harvest activity in both of these watersheds approaches the threshold of concern for water quality. (A discussion of the threshold of concern for water quality in AA12 begins on page 27 in Chapter 4, Draft SEIS).

Although there is considerable remaining CFL in these watersheds, we believe that fish, soil, wildlife, and visual resources would benefit most by allowing previously harvested areas to recover before scheduling further harvest.

A significant portion of VCU 402 drains into minor watersheds which flow directly into Rowan Bay and Chatham Strait. Access to timber in these areas would require road construction that has yet to be analyzed, and such analysis would require considerable time. Time constraints result from our obligation to fulfill the contractual agreement within the time frame of the 1986-90 Operating Period.

Conversely, the impact of road construction in the Three Mile Arm and No Name Bay areas had already been analyzed in previous EISs for the APC 1981-86 and 1986-90 Operating Periods. This made these areas logical candidates for road construction and harvest proposals in this EIS. Road construction analysis for three currently developed VCUs (399, 400, and 421) was analyzed, but time did not allow for such analysis for VCU 402.

230-14

We responded to your concern that the Long-Term Timber Sale Contracts narrow the range of the alternatives in our answer to Comment 230-6.

Satisfying the APC contract is a valid purpose of the action covered by this SEIS. The logistical constraints of the alternatives were discussed in the Phase I Draft SEIS, as well as in the Phase II Draft SEIS, Appendix B-1 (AA6). The Phase I Final SEIS contains additional information on this topic, as does this document under Theme Response 6: Planning Process.

The Forest Service disagrees that changes such as those suggested to the APC Long-Term Timber Sale Contract can be made within the context of this NEPA document. APC has shown no willingness to negotiate such changes to their 50-year contract at this time, and contract changes must be bilateral (See Phase II SEIS, Appendix B-1 (AA6), responses to Concerns 1-4).

230-15

We disagree with your opinion that multiple-use management objectives do not apply to the APC Contract area.

The Tongass Land Management Plan (1979) established Land Use Designations (LUDs). The LUDs classes I through IV designate management emphasis ranging from Wilderness to commodity resource management for each VCU on the Forest. Also in TLMP and within the LUD classes, specific management objectives have been established for non-timber resources. For example, Visual Quality Objectives (VQOs) have been established to manage the visual resource, Recreation Opportunity Spectrum (ROS) classes to manage the recreation and Wilderness resources, and Aquatic Habitat Management Units (AHMU) to manage the stream and fisheries resources.

The SEIS is consistent with these management objectives. Chapter 3 of each Phase II SEIS document presents the existing acreage in each ROS class and visual condition class, and the VQOs assigned to each VCU. It also summarizes the miles of Class I and Class II streams and the percent logged within each VCU. Chapter 4 reports the change in ROS and visual condition classes expected to result from the alternatives, as well as the alternatives' consistency with the VQOs. It also shows the miles of AHMU Class I and Class II streams affected by harvest units and roads. These figures are then checked for their consistency with TLMP objectives (1979, 1986d). The pending LUD class would help determine what action should take place, should a proposed activity be inconsistent. Potential action may include eliminating the activity from the alternative, utilizing mitigation measures to eliminate potential significant impacts and to achieve the management objectives, or allowing a deviation from the management objective when the activity is proposed on LUD IV lands in which commodity values are emphasized. For those units proposed by the alternatives, mitigation measures are indicated on the Unit Cards included in Appendix C-1 (AA3 and AA6) and Appendix C-2 (AA2 and AA12) in the Draft SEIS, and Appendix A-1 in the FSEIS.

230-16

We disagree with your comment that Land Use Designation (LUD) III areas have been managed the same way as LUD IV areas.

Timber harvest is allowed in both LUDs III and IV, but amenity values are emphasized in LUD III areas, while commodity values are emphasized in LUD IV area. Furthermore, six entries are planned throughout the 120-year rotation in LUD III areas, while only 4 entries are planned in LUD IV areas. Chapter 2, Effectiveness Comparison, evaluates how well each of the alternatives meets the intent of TLMP guidelines for LUD classifications. We are unable to comment further on your example because it lacks a specific reference.

230-17

In response to your concern about monitoring, the Forest Service has conducted monitoring of logging operations. Please see the Monitoring section within Theme Response 6 on the planning process.

230-18

To answer your concern that the socioeconomic analysis in the Draft SEIS was inadequate, please see the revised Socioeconomics sections in Chapters 3 and 4 in all of the Final Phase II SEISs.

230-19

We disagree with this comment, which states that the Forest Service's Economic Comparison section in Chapter 2 is deficient. The purpose of this section is to present economic information on how each of the alternatives would affect APC. Mill employment resulting from timber from other sources is not an issue in this section, but is discussed in the revised Socioeconomic section in Chapter 4, Phase II Final SEIS. In response to the argument that jobs and wages resulting from the alternatives are overestimated because the timber volume represents a theoretical maximum, see our response to Comment 230- 7. The Forest Service's costs to administer the contract are not an issue to this project proposal, nor is it within the purpose and need of the SEIS stated in Chapter 1. We have, however, provided additional information on the revenues and expenses of the Tongass National Forest's timber sale program in the FSEIS Consolidated Appendix, Volume III, K. Costs and benefits to non-timber related employment is discussed in the Socioeconomics section of Chapter 4.

230-20

See Theme Response 6 for a definition of the No-Action Alternative. For the SEIS, the No Action Alternative is also entitled Current Direction, which seems to have caused some confusion. The reason for naming the alternative this way was that some authorized harvest activities would continue to take place during the SEIS process. Because the No Action Alternative serves as a baseline for evaluating impacts, it is important to evaluate those

impacts from a known static level. The impacts of the action alternatives were compared to the condition at the time the ROD is to become effective.

The definition of the No Further Harvest Alternative is also the same for all analysis areas. For Analysis Areas 2, 6, and 12, the effect of the No Further Harvest Alternative would be the same as for the No Action/Current Direction Alternative. This has been explained on pages 2-3 through 2-5 of the AA2, AA6, and AA12 Draft Phase II SEISs. The effect of the No Further Harvest Alternative would not be the same as the No Action/Current Direction Alternative for Analysis Area 3. See pages 2-3 and 2-22 of the Draft Phase II SEIS for AA3 for descriptions of these alternatives.

230-21

The purpose of the SEIS is described in Chapter 1 of each SEIS. The purpose was not to "remedy procedural flaws affecting the entire EIS process", but to address the issues and concerns brought out in *Tenakee v. Courtright* and *Hanlon v. Barton*, while satisfying the contractual requirements of the APC contract. See the previous response to Comment 230-20 for information on the intent of the No Action Alternative.

230-22

Presenting an alternative that cancels the contracts or which does not meet contract volume requirements clearly does not meet the stated purpose and need of the proposed action. The object of the proposed action is to meet contractual requirements, not to cancel or change them. Contracts are legally enforceable in a court of law. Therefore, we chose not to further evaluate action alternatives that change the contract or otherwise fail to meet the purpose and need of the proposed action. Cancellation of the Contract was considered, but not evaluated further.

230-23

The Supplement and the 1986-90 FEIS do indeed use different planning horizons. The 1986-90 FEIS used a longer planning horizon to predict long-term environmental effects to 2080 (the end of the first rotation). The SEIS evaluates effects to 2011, the end of the APC contract, as being reasonably foreseeable, and tiers to the 1986-90 FEIS for longer term evaluations. See pages 229-307 in the 1986-90 FEIS.

230-24

Your comment suggests that sediment was the only water quality standard considered in formulating the alternatives: In stating our intent to " ...meet State water quality standards, especially with reference to sediment", the word "especially" simply recognizes that sediment is a key water quality standard that will be acutely considered along with the other State water quality standards, including turbidity and temperature. Section 2 of the AHMU Handbook lists the Forest Service's objectives for water quality.

230-25

The comment argues that the No Action/Current Direction and No Further Action alternatives should not be combined for Analysis Area 2, 6 and 12, and it questions why Analysis Area 3 is not treated this way. For our response to this please refer to our response to Comment 230-20 and Theme Response 6.

Alternative 1 assumes that the allowable harvest that is currently authorized to proceed will have been completed by the time the ROD is issued for the SEIS. The logging that continues during the SEIS process was approved by the issuance of the 1986-90 FEIS and ROD and authorized to proceed under court review, and is therefore legal. As is stated in Chapter 2, page 2-5 (AA2), selection of Alternative 1 would have a high probability of causing the Federal government to breach contractual obligations to APC.

230-26

Your comment claims that the analysis of the effects upon wildlife habitat is generic rather than site specific, and that it does not distinguish between high- and low- valued habitat and accessible and inaccessible wildlife. This portion of Chapter 2 is intended to provide a summary of how the alternatives compare in their effect on wildlife habitat. A detailed description of the wildlife habitat analysis is provided in Chapter 4, pp. 7-21 (AA2), including a site-specific analysis by VCU and information on indicator species and critical habitat types. See the revised Wildlife section in Chapter 4 of the Final Phase II SEIS.

230-27

The comment refers to the summary of the effects of proposed harvest on subsistence uses in Chapter 2 of all four analysis areas. It argues that the conclusion in each document is unsubstantiated for a number of reasons. Because the purpose of this portion of Chapter 2 is to provide a comparative summary of impacts, no attempt has been made to substantiate the conclusions presented in this portion of the document. We also state in our Chapter 2 discussion that our conclusions are based on existing data and that subsistence hearings will take place and the results will be considered in our final analysis and conclusions. Our site-specific analysis and conclusions on subsistence issues, including the results of the Subsistence Hearings, is provided in Chapter 4 of the Phase II Final SEIS. Some related issues are also addressed in Theme Response 5.

For Analysis Areas 3 and 6, the comment refers to our conclusion on page 2-104 (AA3) and 2-107 (AA6) as "minor or no effects". We would like to point out that our conclusion for Analysis Area 3 refers only to Alternative 2, the No Further Harvest Alternative, and for Analysis Area 6, Alternatives 1 (the No Action/Current Direction Alternative), 2, and 7. We go on to conclude that the remaining alternatives could potentially affect key subsistence wildlife species. Once again, see Chapter 4 of the Phase II Final SEIS for our final conclusions on all of the alternatives based on analysis and the Subsistence Hearings.

230-28

The Forest Service disagrees with the implication that ANILCA does not provide for timber harvest. Section 810 of ANILCA does, however, require analysis of the effects harvest on subsistence users. See Chapter 4 of the Phase II Final SEIS for the results of the Forest Service's analysis on the effects of harvest and roadbuilding on subsistence users. See also our response to Sealaska Corporation's letter.

230-29

The comment claims that the Forest Service did not develop site-specific mitigation measures or evaluate trade-offs among the various impacts that can be mitigated. Descriptions of mitigation in the text are general to cover all disciplines and provide the reviewer with those mitigation options that are available. The Unit Cards, included as Appendices C-1 (AA3 and AA6) and C-2 (AA2 and AA12) in the Draft SEIS, and as Appendix A-1 in the FSEIS, provide site-specific mitigation measures planned for each harvest unit and how the mitigation is expected to affect impacts. Trade-off among impacts is apparent by evaluating the mitigation measures proposed and the residual impacts. In general, the Forest Service would apply all possible mitigation measures to eliminate significant impacts. When a conflict in resource use occurs, LUD classes are used as a basis for prioritizing impacts.

230-30

We disagree that information on timber harvest modifications is inadequate. Appendix C-3 in the Draft SEIS provides a summary table of unit modifications by unit number for Analysis Areas 2, 3, and 6. The table includes acres proposed for harvest in the EIS, actual acres harvested, the difference between proposed and harvested, whether the addition or deletion of acres was old growth habitat, the reason for the modification, and the resulting change in impact. See Theme Response 6 for information on why unit modifications take place, their subjectivity to the NEPA process, and which modifications require specific NEPA action. Unit Cards that were excluded from the Draft EIS have been included in the FEIS.

230-31

We have not overstated the long-term benefits of precommercial thinning by claiming that significant wildlife habitat improvements can be sustained over the 100 year rotation. Precommercial thinning is relatively new in Southeast Alaska and long-term data on the benefits of this technique do not exist (see AA12, page 4-70, #10). The Forest Service thins second growth stands in an attempt to provide some of the benefits of old growth habitat conditions.

230-32

We disagree that our wildlife impacts analysis is not adequate. This analysis has to address a specific land area (habitat) or population (species). Acres of each wildlife habitat type impacted by each harvest unit are documented on the Unit Cards. The SEIS summarizes this information by VCU for ease in comparing the alternatives. Within the SEIS habitat types,

such as beach fringe, streamside riparian, and forested, have been quantified within each VCU. In response to public comment, the Forest Service has done some further analysis of wildlife impacts. See the revised wildlife section in Chapter 4 of each Final Phase II SEIS document.

230-33

The comment indicates confusion about the visual resources sections of the documents (Chapters 3 and 4). To clarify, Existing Visual Condition (EVC) is shown in acres for each VCU in the Analysis Area (Table 3-22, AA2). Definitions for each EVC class are provided in the glossary. The existing visual inventory for the Analysis Area consists of the EVC class acreages, which must be updated as activities occur on the Forest that alter its visual condition. Furthermore, the EVC provides a basis for evaluating change expected to result from planned activities.

The Visual Quality Objectives (VQO) are also defined in the glossary of the SEIS. They provide acreage goals for management of the visual resource. VQOs range from maximum modification to preservation, and consider other resource values, such as timber and the planned management direction of TLMP.

The proposed action alternatives would be expected to alter the visual resource. The changes in visual condition (Table 4-18, AA2) indicate how each alternative would affect the visual resource in the Analysis Area. The changes in visual condition should be compared to the EVC acreage displayed in Chapter 2. In addition, the deviation or consistency of the planned action with the VQO is described by VCU in the text. It is not always possible for planned management activities to meet all the assigned VQOs. In LUD III areas where amenity values, including visual quality, are the priority, while in LUD IV areas commodity values take precedence.

230-34

For Analysis Area 12, the comment states that, "The conclusion that minimal impacts will occur to subsistence resources from further logging cannot be substantiated." However, we do not come to this conclusion in the SEIS. We state in the SEIS is that "...the effects analysis for wildlife indicates that timber harvest and road construction activities proposed under Alternatives 1, 2, 4, and 5 will have minor or no effect on the availability of wildlife subsistence resources for the users from the primary-use communities". Our conclusion applies only to the proposed action under Alternatives 1, 2, 4, and 5, rather than to "further logging" as your comment states, and we conclude that actions proposed under these alternatives will result in little or no effect on the availability of wildlife subsistence resources for use by subsistence communities.

Our conclusion is based on our analysis of the effects on wildlife and is tentative until data from the Subsistence Hearings is evaluated. Please see Theme Response 5 and revised subsistence sections in the Final Phase II SEIS for our final conclusions, including those which incorporate issues discussed at the Subsistence Hearings.

For all of the analysis areas, see Theme Response 9 for additional information on deer habitat capability models. See Chapter 4, Final Phase II SEISs for our final conclusions pertaining to wildlife and subsistence, which are based on our final effects analysis and results of the subsistence hearings. Additional information on wildlife and subsistence is also presented in Theme Responses 5, 7, and 8. In regard to your comment on the "arbitrarily shortened" reasonable foreseeable future time frame, see our response to Comment 230-23.

230-35

The purpose of the section on irreversible and irretrievable commitment of resources is to discuss the use of nonrenewable resources of the alternatives. Under all of the action alternatives, some mature and overmature stands would be removed. Mature and overmature stands are renewable and will replace themselves should harvest discontinue. The Forest Service does recognize the wildlife habitat and recreation values associated with mature and overmature stands and has set aside some of this resource to be preserved in Wilderness and replenished in extended rotations. Because mature and overmature forest stands are considered a renewable resource, however, their impact from the alternatives is discussed earlier in Chapter 4 (pages 4-51 through 4-54 in AA6, 4-69 through 4-71 in AA3, 4-43 through 4-45 in AA2, and 4-47 through 4-49 in AA12). We agree that the section of the Draft SEIS which addressed the irreversible and irretrievable commitment of resources needed to be refined and expanded. We have done both in the Final SEIS.

230-36

As we stated in the Phase II Draft SEIS, implementation of the No Action Alternative, if extended for long periods of time, would result in loss of the economic value of the existing stand. This is not to say that future stands on those sites would not have similar value, assuming a market for the timber exists in the future.

Please see the Final SEIS for a revised and expanded analysis of irreversible and irretrievable commitment of resources.

230-37

We disagree with your statement that in Analysis Areas 2,3, and 12, fisheries enhancement is an irreversible and irrecoverable commitment of resources under the No Action Alternative.

The SEIS states that the No Action Alternative would terminate the opportunity for potential fisheries habitat enhancement through the balance of the plan period, 1990. Once management activity is allowed to resume in the area, the opportunity for potential fisheries habitat enhancement would resume as well.

230-38

Several of our previous responses have addressed the relationship between the Phase I and Phase II documents, and the issue of public involvement. We have discussed the relationship between Phase I SEIS, Phase II SEIS, and previous planning documents in Theme Response 6 on the planning process. The role of public involvement in the Phase I and Phase II process is addressed as Theme Response 1. In summary, public comments on the Draft Phase I SEIS relevant to the scope of the Draft Phase II SEIS were considered and specifically addressed in B-3 (AA12).

230-39

The comment recognizes a difference in reported land acreages in the Tongass Land Management Plan (TLMP) Amendment and the SEIS for Analysis Areas 3, 6 and 12. The land area classified as Analysis Area 12 in the SEIS is not the same as the Analysis Area 12 in the TLMP amendment. Portions of VCUs 427 and 428 are outside of the APC Contract Area and therefore were not considered in the SEIS Analysis Area 12 evaluation. For Analysis Areas 3 and 6, the SEIS reported approximate total acreage of the analysis area, while the TLMP amendment reported National Forest land acres only.

230-40

The Forest Service believes that it has adequately addressed the issues which were the bases of the administrative appeals. As is stated in Chapter 1 (p.1-19 AA6; p.1-18 in AA2, AA12), the Interdisciplinary Team (IDT) reviewed and considered the reasons for appeal prior to preparing the Draft Phase II SEIS. The reasons for appeal are included in the documents as Appendix B-4 (AA12). By responding to the issues identified in the *Tenakee Springs v. Courtright* Memorandum and Order and the Settlement Agreement (Appendix A-2, Draft SEIS), as well as issues raised in *Hanlon v. Barton*, we believe we have adequately addressed the issues of the administrative appeals as well.

230-41

Your comment suggests that Wilderness, visual, and recreational resources are not adequately analyzed, but refers to Chapter 2, Comparison of Impacts, which is intended to summarize the impacts analysis presented in detail in Chapter 4. The reader should refer to Chapters 3 and 4 for information on specific management objectives and how well the alternatives meet these objectives.

To clarify: the Visual Quality Objectives (VQO) and Recreation Opportunity Spectrum (ROS) classes are the specific management objectives for visual and recreation resources, respectively. The Pristine and Semi-Primitive Roadless ROS designation is used to classify Wilderness and potential Wilderness resources. See the visual and recreation resources sections of Chapters 3 and 4 for VQO and ROS classifications for each VCU.

A major purpose of constructing forest roads is to provide access to and from the harvest units. Our statement that roads will increase recreational access to the interior regions is true. We also recognize in the SEIS that current recreational use of roads is low in the APC Contract Area, especially Analysis Areas 12 (see Chapter 3, Recreation: current use). We have not proposed road construction for the purpose of recreational use, nor have we claimed that additional roads will necessarily improve recreation opportunities.

230-42

Your comment expresses concern at the use of non-standard logging systems in Analysis Areas 3 and 12. Standard logging systems include not only the highlead, but the slackline, running skyline and standing skyline as well. Nonstandard systems include helicopter logging and the long-span skyline. Alternatives 1, 3, 4 and 5 for Analysis Area 3 propose use of a combination of highlead and short/intermediate span skyline systems for the remainder of the 1986-90 APC period (see Tables 2-4, 2-6, 2-8 and 2-10). All of the action alternatives for Analysis Area 6 propose use of standard systems including highlead and skyline (see Tables 2-2 and 2-4). These systems are appropriate for the harvest units proposed in the SEIS. The purpose of employing systems other than highlead is not to fulfill an arbitrary quota, but to mitigate significant damage to hazard soils and other resources.

230-43

In response to your concern that the wildlife evaluation does not use the best available information in Analysis areas 3, 6, and 12, please see Theme Response 9 for support of our use of specific data bases, assumptions and models for the SEIS. Our discussion in Chapter 3, pages 26-35 (AA3), pages 16-20 (AA6), and pages 32-46 (AA12), does discuss the importance of various habitat types to specific wildlife species. It also identifies those habitats which are most important to deer during severe, moderate and mild winters.

Table 4-30 (AA12) indicates that through 2011, 3,047 acres (68 percent) of the deer winter range in VCU 402 will remain. We do not understand how the SEIS text "implies that in the next sixty years most of the existing old-growth deer winter range will be logged," as your comment claims.

230-44

Our assumption states, "Second growth stands within deer winter range would be managed to provide cover and forage." We have not assumed a long-term sustainable food supply for deer on an acre-by-acre basis. The second growth stands in their various stages of succession throughout the forest are expected to provide cover and forage for deer. This assumption, however, applies to the reasonably foreseeable future. The actual amount of cover and forage available at any given time will depend on the distribution, amount and timing of future harvest activities. Therefore, cover and forage cannot be quantified in terms of marginal value.

We would like to evaluate and respond to "recent research" cited in the comment, but a full reference was not provided.

230-45

We do not assume that all commercial forest lands (CFL) in Analysis Areas 3 and 12 are equally subject to impacts. Our assumption states that operable CFL is equally subject to impacts, not that these acres are subject to equal impacts, as was apparently interpreted by the commentator. This is a reasonable assumption when applied to long-term and cumulative impacts analysis. Logically, potential long-term activities are not planned to the same site-specific detail as the proposed action. Therefore, long-term impacts analysis cannot be as site specific as the impact analysis of the proposed action. The intent of the assumption is to recognize that logging any given area of operable CFL is likely to result in impacts upon various resources.

230-46

We address the issues of monitoring and riparian protection in both the Draft and Final SEIS. Also see the Unit Cards (Draft SEIS C-1 for AA's 3 and 6, and C-2 for AA's 2 and 12; Final SEIS Appendix A-1) for site-specific application of appropriate buffer strips.

230-47

The impacts evaluation can only be as site specific as the plans they evaluate. Because long-term plans are not made site specific until actual proposed actions are scheduled, the long-term and cumulative effects analyses are not site specific. Long-term and cumulative effects, however, are based on the Multi-Entry Layout Planning (MELP) process which assumes layout of roads and harvest units in order to estimate these effects. The MELP process identifies commercial forest land, logging systems, and road networks required to manage the timber resources of each VCU in Land Use Designation (LUD) II and LUD IV categories. It also considers high hazard soil conditions, fisheries and wildlife habitat management objectives, and management objectives relating to visual and other resources. The MELP process information is available for public review in the Chatham Area office and can also

be obtained at cost through the mail. Because the MELP data is voluminous, those who wish to order it may wish to review the materials first. See Theme Response 8 for reasons why this information was not published in the SEIS.

230-48

The Forest Service agrees with your comment on the limitations of the Southeast Alaska Multiresource Model SAMM and did not use it to conduct analyses for the SEIS.

230-49

Your comment states that our analysis of the impacts of the No Action-Current Direction and No Further Harvest Alternatives (Analysis Area 12) on Wrangell Forest Products is "grossly overestimated". While the Forest Service disagrees with some of the logic of your comment, we also recognize that the impact associated with the No-Action Alternative is not absolute. In response, we have inserted the word "potential" into the statement in the Final SEIS.

230-50

You cite a failure to discuss long-term and cumulative effects in the Chapter 2 section on Comparison of Impacts for Analysis Area 12.

The purpose of Chapter 2 is to evaluate the proposed action alternatives based upon the data reported in Chapter 4. Chapter 4 has been modified to make a clearer distinction between reasonably foreseeable long-term and cumulative effects of the proposed action and the more general long-term vision of the TLMP or other scenarios. The long-term vision of TLMP is not a proposed action under NEPA or CEQ regulations. Also see Theme Response 6 for additional information on the planning process.

230-51

The comment calls for an explanation of the differences between two Forest Service data bases, the TLMP data and the MELP data. TLMP data are a statistically valid data base for the Forest-wide programmatic planning decisions subject of the TLMP EIS. These data are not statistically valid for any given VCU or smaller unit of land. MELP data are not a timber inventory as the comment suggests, nor are they the subject of the ADF&G letter referred to in your comment. They were not generated by a statistical sampling system, nor were they intended to be. These data do, however, contain timber stand observations, some of which are from local stand databases. It would not be appropriate to interpret or expand MELP data for use in Forest-wide programmatic planning, including calculating the Allowable Sale Quantity (450 MMBF). MELP data were presented as an indication of localized data in addition to the Forest-wide statistically derived data used in the Forest Plan (TLMP). The MELP data base is more accurate than TLMP for site-specific proposed harvest unit evaluation. Therefore, we have used the MELP database for impacts analyses within a VCU.

230-52

Socioeconomic data was presented in Chapter 3 to provide general background on the current situation. The Forest Service does not agree that detailed data such as where logging contractors spend their income is needed to respond to the purpose and need, or to the issues listed in Chapter 1 of the Phase I Draft SEIS. Nor is such detailed information a variable in selecting an alternative. Presenting this level of data in the SEIS would be inconsistent with CEQ Guidelines regarding the reduction of paperwork (Section 1500.4). For additional information, see Chapter 3, Socioeconomics, in the Final SEIS.

230-53

Your comment asks how further logging will inhibit the normal recovery of deer populations, and asks when the traditional and customary use of these deer populations can continue. Your comment indicates some confusion about CEQ-approved format. Chapter 3 provides information on the current situation. For information on impacts of logging to the deer, see Chapter 4, Wildlife section. For information on traditional and customary uses of the deer, see the Chapter 3 and 4 Subsistence sections. Decisions on deer hunting are the responsibility of the ADF&G and not within the scope of this project level SEIS.

230-54

You request site-specific data on deer populations throughout the analysis area, but unfortunately, these data do not exist. The Forest Service is responsible for managing wildlife habitat, while ADF&G is responsible for managing the wildlife populations, and enforcing hunting regulations. CEQ Regulations do not require a specific level of data, but state that the level needed is that which enables the agency to make a reasoned choice among alternatives. Because the health of wildlife populations is so strongly related to the amount and quality of available habitat, we evaluate changes in habitat in order to anticipate effects upon populations. ADF&G is responsible for data on deer populations, but they do not have those data for all of the VCUs being evaluated. In the absence of ADF&G deer population data, the Forest Service has used habitat capability models to show existing habitat conditions by VCU. We discuss existing habitat conditions in Chapter 3, and discuss several habitat components, such as elevation, predation, and volume class, in the Wildlife Habitat Model Description and Evaluation in the DSEIS Appendix. More site-specific information on habitat conditions is shown on the Unit Cards. See the revised subsistence section of the Final SEIS for our final analysis of Subsistence, which includes response to public comment and the subsistence Hearings. Also see Theme Response 5 for general information on subsistence use.

230-55

For the information your request, Chapter 3, Subsistence, presents the most recent data available (1987) on the demand for various subsistence resources for Kake, Point Baker, and Port Protection (see Tables 3-22, 3-23, and 3-24 (AA12)). No valid data exist to accurately project population expansion for these communities, and any attempts to do so would be speculative.

The comment refers to Chapter 3, where information on the existing condition is presented. Please refer to Chapter 4 for information on the affects of the logging on future subsistence opportunities. See revised Chapters 3 and 4 Subsistence sections in the Final SEIS for our final analysis of current subsistence use and the effects of the alternatives on subsistence. Also see Theme Response 5 for general information on subsistence.

230-56

The comment states that the McDowell Group Study (1988) has been criticized for its overly simplified assumptions and erroneous conclusions concerning employment multipliers. We cannot respond to this criticism without further information or references supporting this point of view.

230-57

Your comment concerns how much operable CFL is remaining and "effectively isolated behind existing backlines," and the economic and resource trade-offs associated with harvest of this CFL in the future.

Although Figure 4-2 does not explicitly show operable CFL remaining, one can extrapolate that if, for instance, 20 percent is logged, 80 percent remains. This information can also be calculated from Table 4-31 in the Draft Phase II SEIS for Analysis Area 12 and Table 4-31 in the Draft Phase I SEIS, to which this document is tiered.

The purpose of this document is to analyze the impacts of the proposed action alternatives. The proposed action does not include second entry above existing backlines. Scheduling second entry now for harvest in the long-term future would be premature and inconsistent with Regional Guide policy, which requires hydrologic recovery, maintenance of diversity, and consideration of harvest units to Class I, II, and III streams. The economic considerations of second entry will be discussed when such action is proposed.

230-58

We disagree that the deer habitat capability model is "crude". See Theme Response 9, which addresses the concerns expressed about the use of our habitat capability models and the data used within the models.

230-59

The purpose of the Environmental Assessment for the No-Name Bay log transfer facility (LTF) is to evaluate the impacts of the facility on subsistence, as well as other environmental aspects. The impacts of proposed upland harvest to be transferred through this LTF (SEIS Alternative 3) are discussed in the Phase II Draft SEIS in Chapter 4, pages 4-42 through 4-45. See Chapter 4 of the Final SEIS for AA12 for our final evaluation of the impacts of Alternative 3 on subsistence, including our response to public comment and the Subsistence Hearings.

230-60

See our response to Comment 230-30. The NEPA process was conducted and an environmental assessment was prepared for units D-10 and D-11 in Analysis Area 12 to better determine whether a potential significant environmental impact was present. In many cases, unit modifications are conducted to eliminate or mitigate a potential environmental impact and the action, although subject to NEPA, is clearly not a major Federal action that may result in significant environmental impact.

230-61

Your comment concerns information provided in Appendix B-3 of the Draft SEIS for Analysis Area 12. Based on comments on the Phase I SEIS, there appeared to be some confusion as to how the analysis areas were delineated and why renegotiation of the APC contract was not considered an alternative. The purpose of Appendix B-3 is to provide information on these concerns. Responses to public comments on the Draft Phase I SEIS are included with the Final SEIS. We believe that the SEIS includes an adequate range of alternatives within the purpose and need described in Chapter 1. We also believe that the site specificity of the SEIS is adequate, with the inclusion of Unit Cards, maps, tables, and discussion throughout the document.







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August 14, 1989

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AUG 15 1989

REGIONAL FORESTER
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Dear Mike,

Thank you for the opportunity to review and comment on the Phase II documents of the draft Supplemental Environmental Impact Statement (SEIS) for the Alaska Lumber and Pulp Long-Term Timber Sale. We find that the SEIS is inadequate in many ways. The most critical flaw is that the SEIS is programmatic rather than site-specific and only evaluates a very narrow range of existing feasible options available to the Forest Service.

The following concerns need to be addressed before the SEIS can be accepted as a creditable document:

230-1 1. The SEIS is Programmatic, Not Site-Specific

The SEIS provides an overwhelming amount of information. The size and scope of the project is so great that it is virtually impossible to completely comprehend all the environmental, economic, and social ramifications of the SEIS alternatives. The project area covers nearly two million acres and spans numerous management decisions made over the last ten years. The scale of the SEIS exceeds that of many forest plans under the National Forest Management Act (NFMA). As a result, discussions of proposed management actions and their environmental impacts are lacking in specifics. As in the past, the alternatives discussed in detail are limited to the contractual terms of the long term timber sale rather than the lower timber harvest that is suggested by the actual harvest levels over the past 25 years.

230-2 To overcome the inevitable problems in the size and scope of the SEIS, the Forest Service has linked or "tiered" the SEIS to other numerous and lengthy planning documents that precede the SEIS. Many of these documents do not have compatible contents or formats to allow the public to make logical connections and a meaningful integration of all the information presented. For example, two separate sets of "alternatives" were developed by

230-2 Cont. the Stikine and Chatham planning teams for the 1981-86 operating period. The only common management theme between the two sets, is that each alternative represents some "geographic area". Only two of the 1981-86 alternatives can stand alone and meet the decision criteria set forth for the preferred alternative. To further complicate matters, alternatives for the 1986-90 operating period are of a different type. The 1986-90 alternatives were based on various management philosophies over the entire five year operating period, such as emphasizing economic returns based on timber appraisal values or giving top priority to amenity values. Taken together, there is no way to meaningfully integrate the information in the seven sets of past planning documents with the five new volumes in the SEIS. We believe the public and the courts want a simple and straight forward disclosure of site-specific environmental and economic effects of the proposed project. The Forest Service needs to scale down their approach to each problem to allow the public to focus on the site-specific impacts.

230-3 The programmatic approach is also demonstrated by the fact that the on-the-ground layout of many clearcuts and logging roads will not be made until the SEIS is finalized. Without knowing how generic management prescriptions are to be modified and applied to site-specific areas, there is no explicit way for the public to understand how the Forest Service will actually conduct the timber sale and why the preferred alternative is deemed "the best choice". The lack of site-specific plans in the SEIS should not be confused with the practice of modifying site-specific management practices based on additional monitoring information. While this practice may be common, it is a correction to a completed plan rather than a complete lower level of planning which sets management directions. Likewise the lack of site-specific information should not be confused with the need for a complete and detailed mitigation plan. The SEIS needs to display

230-4 (1) the total array of timber management, logging and road construction options that were considered in the sale area, (2) the specific scientific and administrative evidence that supports why specific harvest units and road location were selected as the "best" way to proceed, and (3) the anticipated economic and environmental consequences of the preferred alternative in relation to the effects of the second, third or fourth options available.

230-1 The SEIS is also programmatic in its treatment of the standards and guidelines protecting non timber resources. It does not evaluate management of other resources on a site by site basis. The SEIS only references generic management prescriptions for non timber resources as they are listed in previous planning documents, such as The Regional Guide and/or the Area Guide. These documents only prescribe the general management guidelines for each resource and do not prioritize these guidelines, to consider the inevitable resource use conflicts that arise in

230-1 specific areas. Such conflicts were common in my experience as a Forest Service hydrologist on interdisciplinary planning teams, and resource tradeoffs were especially common where timber volume targets are set in advance of the actual timber sale layout. To be site-specific, the SEIS must include for each harvest unit and road location a discussion of which standards and guidelines will be applied and which must be sacrificed or diminished to proceed with the alternative under consideration.

230-5 In order to demonstrate the effectiveness of the standards and guidelines for protecting other resources the SEIS needs to display the results of the resource monitoring prescribed in the EISs for the 1981-85 and 1986-90 operating periods. For example, there is no discussion on the prescribed monitoring of suspended sediments that are associated with road construction in the 1981-85 and 1986-90 operating periods.

230-6 The SEIS is also programmatic in its treatment of the alternatives considered for detailed analysis. For example, the SEIS evaluates the "action" alternatives in terms of the timber volume requirements set-forth in the long-term contracts, rather than the actual anticipated level of logging. The Forest Service practice of preparing and releasing more timber than APC actually needs is not new. From 1961 to 1985, 3.2 billion board feet (bbf) were appraised and made available under the APC long-term contract, but only 1.9 bbf were actually harvested. Over this time, APC has requested 31 to 47 percent more timber than it actually needed. Since 1977, APC has harvested an annual average of 64.4 mmbf from their long-term sale. In recent years, APC's harvest rates have been higher than this average, with harvests of 73 mmbf in 1987 and 86 mmbf in 1988. Even so, APC has still harvested only 48 percent of the total timber requested from the Forest Service.

230-7 The practice of evaluating and releasing far more timber than necessary through the NEPA process has been carried over into the SEIS. Under the Forest Service SEIS criteria in Phase I, 150 mmbf to 170 mmbf of timber is specified to come from Analysis Area 12 over a 19 month period (the 1989 and 1990 operating seasons). In Phase II, 105 mmbf of timber has been selected to supply the Rowan Bay logging camp alone. The Rowan Bay camp is one of the four APC logging camps in the long-term timber sale area. Yet, the proposed timber supply for the Rowan Bay camp will nearly equal the historic cut for the entire APC logging operation. The proposed 105 mmbf more than doubles the historic average annual cut for the Rowan Bay camp. Obviously, not all the timber proposed for harvest at Rowan Bay will be logged. This makes it impossible to predict where and when actual site-specific impacts will occur.

230-8 There are major status changes in the harvest units shown on the maps in the Phase I and Phase II documents. For example, two large units on the north side of Kook Lake (Analysis Area 6) have been changed from proposed harvest areas in Phase I to harvested areas in Phase II. There are harvested units in Phase II that were not shown as proposed or harvested units in Phase I. Harvested units in Phase I are now shown as proposed units in Phase II. Either these are major errors, or the argument that the NEPA documents do not represent actual on-the-ground conditions is strengthened. We have not had time to compare the Phase I and Phase II documents for all the other VCUs. However, we do note that this comparison will not be entirely possible since Phase I did not include the maps covering many areas in Phase II. For example, maps for VCU 244 Sitkoh Lake are included in Phase II, but not in Phase I. The above discrepancies, along with the many errors that were noted in the Phase I document, need to be corrected before the SEIS is finalized. The final SEIS should display the corrected information for both Phase I and Phase II documents.

230-7 Since all the SEIS action alternatives are geared to the maximum contract volume rather than the actual anticipated timber harvest, the range of alternatives has been arbitrarily narrowed and skewed towards the maximum possible cut. The SEIS only evaluates the potential impact of meeting the maximum timber
230-6 volume requested by APC, an event that in practice has never occurred. Thus, the SEIS is analogous to the programmatic EISS for national forest plans, in which the forest plan evaluates timber harvest in terms of the allowable sale quantity, or the maximum amount of timber that can be offered for sale in each decade. This allowable sale quantity is rarely if ever achieved. Like the SEIS, Forest plans are a programmatic evaluation of theoretical maximums rather than based on actual practices.

2. Lack of Public Involvement

230-9 We are most concerned that the SEIS effort has circumvented the public involvement process. We doubt that the logic behind Phases I and II would have prevailed had a conventional public involvement process been conducted. For example, Phase I
230-10 needlessly limits the scope of the SEIS in order to meet the terms of the long-term timber sale contract rather than exploring all reasonable alternatives to minimize environmental impacts through such actions as modifying the contracts. Also, we doubt that the use of the deer habitat model would have been accepted had the simplified model been available for professional review.

230-9 There is insufficient documentation of how the Forest Service has responded to the public comments made on Phase I of the SEIS. While there is a limited discussion on some of these comments in appendices B-3 of the Phase II documents, responses

230-9
Cont. are lacking to many of the comments concerning the process and scope of the SEIS, as well as, the many noted numerical and editorial errors in the Phase I document. For example, in our comments on Phase I, we noted the lack of adequate public involvement, the overwhelming size and scope of the analysis, the lack of meaningful integration of the alternatives presented in EISs for the 1981-85 and 1986-90 operating periods, and the existence of several important information gaps. The Forest Service has not allowed us or the general public the opportunity to respond to their decisions stemming from the draft Phase I document since the agency has not issued a final Phase I document. As described further on, Phase I and Phase II are related but very different planning processes. The preclusion of adequate public participation in Phase I, drastically reduces the opportunity to meaningfully participate in Phase II.

3. Relationship to the Tongass Land Management Plan.

230-11 While the origin of the VCUs and Management Areas in TLMP is clear, there is no clear evidence in the SEIS on why the APC contract area is divided into even larger analysis areas than for the forest plan (TLMP). Logic would dictate that the analysis area of a site-specific EIS would be much smaller. The size of the analysis area should be a function of the site-specific resources affected and the need to quantify the impacts of land management practices. Again, the size of the analysis areas in the SEIS is the result of an administrative decision to take on a overwhelmingly large problem.

230-12 Phase I and Phase II documents of the SEIS represent two very different sets of management decisions on where and when to harvest timber. The APC long-term timber sale has always had a separate planning process that has essentially preempted much of the Tongass Land Management Plan (TLMP). For the purposes of the SEIS, it appears that Phase I of the SEIS has been created to provide the missing link between TLMP and the EISs for the 1981-85 and 1986-90 operating periods. However, the structure and timing of the Phase I documents are inconsistent with the logical linkage between TLMP and the EISs for the 1981-85 and 1986-90 operating periods. In a hierarchical planning order, Phase I should have been completed before the two EISs. This planning process between the forest plan and actual projects is called commonly refer to as the Management Area Analysis. Its purpose is to select from the full array of management options, contained in forest plan, a set of projects which can be implemented. In this case the Management Area Analysis was never created. Phase I has been interjected between the completed EISs for the 1981-85 and 1986-90 operating periods and Phase II of the SEIS, in an attempt to fill this void. Yet, Phase I of the SEIS is not an adequate substitute since it only narrows the range of existing options that were already presented in the EISs.

The degree to which timber harvesting alternatives are not considered in the EIS's, and thus not considered in the SEIS, is exemplified by the watersheds around Rowan Bay, Kuiu Island (Value Comparison Unit 402). Starting in the early 1970s, these watersheds were extensively logged under the Alaska Pulp Corporation long-term timber sale contract. Based on Forest Service information, there are 20,058 acres of commercial forest lands (cfl) in this area, of which 11,982 acres are operable, using conventional logging methods. Of the operable cfl, about 4,200 acres have been harvested. This means that 65 percent of the operable cfl is still available for future logging. Yet, most of this available timber was not considered in the EISs for the 1981-85 and 1986-90 operating plans. Likewise, the SEIS also neglects to evaluate possible alternatives that would utilize this timber. This means that there will be a bias to access more unroaded watersheds where the high-volume timber proposed for harvest often coincides with valuable fish and wildlife habitat. In summary, Phase I does not link the EIS with the full range of opportunities available under TLMP, nor does it employ the Management Area Analysis concept prescribed by TLMP. The Phase I analysis merely cuts short the range of alternatives that were considered in the original EISs for purposes of Phase II in the SEIS.

230-13

4. A Lack of a Reasonable Range in Selected Alternatives

230-14

In addition to the circumscribing the reasonable range of management opportunities mentioned above, the Forest Service has been operating on the rationale that the long-term contracts are inviolate and that the end of the current operating period in December, 1990 is a rigid deadline. These artificial constraints narrow the range of alternatives in the SEIS. These constraints limit detailed consideration of areas where permits exist for log dumps or where there is enough time to construct new logging roads before the end of the 1990 logging season. This means that only a small portion of the unharvested logging units previously considered in the EISs for the 1981-85 and 1986-90 operating periods are being evaluated in Phase II of the SEIS.

The above practices are not absolute. The contracts are not inviolate. Major changes, in the location of logging units, the timing of harvest and the volume to be made available, can be made under the long-term timber sale contract. This is best exemplified by the 1985 Agreement between APC and the Forest Service, in which the Suntaheen area was laid out for timber harvesting in the 1981-85 operating plan. It was subsequently deleted under the 1985 agreement, but then harvested in 1988 under the 1986-90 operating plan. The practice of carrying over unharvested logging units from one five-year operating period to the next is well established and defeats the argument of a firm 1990 deadline. The unharvested areas from the 1981-85 operating

230-14 period are now eight years old. There has been ample time to
Cont. gain the required permits and plan for roads in advance. The
Forest Service has arbitrarily eliminated many commercial forest
lands from consideration in the SEIS to remedy the fact that they
originally failed to comply with NEPA in the 1981-85 and 1986-90
EISs and are now out of time. This means that many of the NEPA
type decisions important to the public have already been
predetermined.

230-15 Since the SEIS alternatives are confined by the terms of the
long-term timber sale contract, they only implicitly consider the
management of other resources such as wildlife, fisheries,
recreation and visual quality. The SEIS substitutes generic
mitigation measures associated with logging for actual management
objectives for non-timber resources. This approach obscures how
the proposed clearcutting will impact this management direction
and impact these other resources. Just referring or "tiering"
back to the forest plan (TLMP) is insufficient to make up for
this deficiency. TLMP only determined whether lands were
suitable or not for designated wilderness, and set forth only the
management emphasis for non-wilderness lands. In TLMP the
determination of specific multiple-use management objectives was
left to lower level planning, i.e., Management Area Analysis and
project planning. Management Area Analysis called for in the
forest plan has not been conducted for the APC timber sale area.
Thus, an explicit, comprehensive set of multiple-use management
objectives does not exist for the APC timber sale area; a
situation that has not been remedied in the SEIS.

5. Failure to Implement Past Management Plans

230-16 Even if the extensive reference or "tiering" to past
planning documents was clearly understood, the commitment of this
management direction is of little comfort to the public. In many
cases the Forest Service has not followed this management
direction. For example, the Tongass Land Management Plan (TLMP)
set forth special management considerations for Land Use
Designations (LUD) III. These areas called for more protection
of fish and wildlife habitat, recreation opportunities and visual
quality than what they have received. These areas have been
managed like any other LUD IV area, where timber harvesting takes
a much greater precedent over other resource needs. Thus, the
intent of the Forest Service is not clear when they refer or
"tier" back to the forest plan in the SEIS.

230-17 The comprehensive monitoring of adverse impacts from logging
as prescribed by TLMP and the EISs for the 1981-85 and 1986-90
operating plans has never been undertaken. Programs to quantify
the impacts of logging on water quality were initiated in the
late 1970s, but were substantially curtailed or eliminated after
1980. Had these monitoring programs continued, the Forest
Service would have a much better understanding on whether logging

230-17 in southeast Alaska can be done without violating state water
Cont. quality standards and without long-term degradation to fisheries
habitat. Without sufficient documentation of the effectiveness
of the measures to protect other resources, the public must
accept on blind faith the Forest Service claims of no significant
impact, or bear the burden of proving that losses have occurred.
The tasks of monitoring logging operations are beyond the time
and resources of the general public and are clearly a part of the
agency's responsibilities under the National Forest Management
Act.

6. Inadequate Economic Analysis

230-18 Like the treatment of non-timber resources, the socio-
230-19 economic analysis is insufficient. The economic costs and
benefits are limited to the costs of logging and manufacturing
the timber from the APC sale area and the potential number of
timber related jobs and wages attributed to the timber volume
made available under the long-term timber sale contract. As
already pointed out, the timber volume in each alternative
represents a theoretical maximum under the contract which exceeds
the actual anticipated harvest. The Forest Service costs to
prepare and administer the APC sale and implement mitigation
measures are totally omitted. These costs are significant, since
the Forest Service incurs the repeated costs of preparing timber
which is not logged and is then carried forward into the next
five year operating plan. There is no analysis of the short-term
and long-term economic efficiency of the alternatives. Economic
analysis omits the economic costs and benefits associated with
non-timber resource uses. The jobs and wages associated with
non-timber resources are totally ignored. The only mention of
these other economic sectors is in a socioeconomic overview for
the entire southeast Alaska region. There are no attempts to
quantify the non-timber socio-economic effects within APC timber
sale area.

7. Alternatives are Not Consistent Between Analysis Areas

230-20 There are inconsistencies between how The No-Action, Current
Direction and No-Further Harvest Alternatives are developed for
each Analysis Area (AA). For AA2, AA6 and AA12, The No-Action,
Current Direction and No-Further Harvest options are combined
into one alternative. In contrast, AA3 is treated differently.
The No-Action and Current Direction options are combined into one
alternative, while the No-Further Harvest option is a separate
alternative. It appears that all of the above alternatives are
based on the court agreement. We believe this is an improper
application of the no-action alternative. An alternative based on
the existing court agreements will be vague by definition. The
agreement is open-ended and subject to renegotiation. For
example, the original agreement has already been amended and
extended for the 1989 operating period. More important, the

230-20 court agreements can be characterized as short-term stop-gap measures that recognize that timber has already been illegally cleared under NEPA and that some logging will be completed while the SEIS remedies the NEPA deficiencies. Thus, No-Action, Current Direction and No-Further Harvest alternatives for AA2, AA3, AA6 and AA12 are based on a illegal foundation and should not be a viable and feasible alternative in the SEIS.

230-21 The purpose of the SEIS was not just to look at a few marginal decisions on top of those made in the 1981-85 and 1986-90 EISs, but to remedy the procedural flaws affecting the entire EIS process. The intent of the no-action alternative is to evaluate the impacts of not providing any timber for harvest under the 1981-85 and 1986-90 operating periods. If this means a breach of the contract, then this alternative should describe the social economic and environmental consequences of this action.

8. Summary of General Comments

The objective of the SEIS is not to (1) take the path of least resistance or (2) only consider alternatives that are consistent with the terms of the long term timber sale contract or (3) to bolster past decisions. The need to simplify a very large problem along with their desire to avoid areas with legal or contractual conflicts are not sufficient reasons to circumvent the objectives of NEPA for site specific analysis. In contrast, the SEIS has been used to make many unsupported claims of no significant impact over an artificially narrow range of alternatives. A straight forward evaluation of the impacts has been displaced by the referencing or "tiering" of the SEIS to an array of complex planning documents prepared over the last 13 years. This precludes meaningful public participation.

9. Recommendations for Forest Service Decesion Making

Within the narrow context in which the Forest Service has generated alternatives, we recommend the following:

For Analysis Area 2, Mud Bay and Neka, we recommend the Forest Service select a modified alterative #2 which would not enter into Value Comparison Units (VCU) 192 and 193. The Point Adolphus-Mud Bay Area (partial VCU 193, and all of VCUs 191, 192, 194, 195 and 196 is proposed for lands protection in the pending Tongass Timber Reform Act.

For Analysis Area 3, Freshwater-Whitestone, we recommend the Forest Service select Alternative #2, and to not construct the proposed tie road between the communities of Tenakee and Hoonah.

For Analysis Area 6, Corner Bay, we recommend that the Forest Service select Alternative #2, which would not enter VCU 237 and not complete the Kadashan Road in VCU 235. In terms of volume required under the contract, the volume "lost" is of little significance. APC has historically requested about twice as much timber then they will actually harvest.

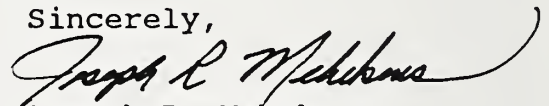
For Analysis Area 12, North and East Kuiu, we recommend that the Forest Service select Alternative #3 and explore other options to provide more volume to the APC from the remaining old-growth commercial forest lands in VCU 402. Over 60 percent of the timber base in this VCU is available for harvest under the Tongass Land Management Plan.

10. Text Specific Comments

Attached are our text specific comments on the phase II documents. Our reference to pages in the draft SEIS list the analysis area first, the chapter number second and the page number third, i.e., AA12, 2-1 would be page 1 of Chapter two for the volume on Analysis Area 12.)

If there are any questions, please contact me at 463-5333 in Juneau or at (202) 842-3400 in Washington, D.C.

Sincerely,



Joseph R. Mehrkens
Executive Director

cc: James W. Pierce -- Forest Service, Alaska Region
Steve Kallick -- Southeast Alaska Conservation Council
Craig Lindh -- Governor's Office
Robert Loescher -- Sealaska Corporation
Kate Graham -- United Fishermen of Alaska
Kate Troll -- Southeast Alaska Seiners
Earl Krygier -- Alaska Trollers Association
Carl Rosier -- Territorial Sportsmen
Jeff Sloss -- SE Alaska Recreation Business Association
Lori Adams -- Sierra Club Legal Defense Fund
Robert E. Lindekugel -- Attorney at Law
Mike Francis -- The Wilderness Society
Dr. Peter Emerson -- The Wilderness Society

ANALYSIS AREA 12

North and East Kuiu Island -- 295,596 acres.

- 230-38 1. AA12, 1-1, first paragraph, second sentence.

The relationship between Phase I and Phase II of the SEIS is not clear; and how the public comment on Phase I has guided the development of Phase II. See our general comments under the headings of 1. The SEIS is Programmatic, Not Site-Specific" and 4. "A Lack of a Reasonable Range in Selected Alternatives".

- 230-39 1(a). AA12, 1-12, Management of the Analysis Area.

We note that the SEIS reports the size of Analysis Area 12 at 295,596 acres, while the amended Tongass Land Management Plan reports the size at 341,628. This discrepancy also occurs for the other Analysis Areas and needs to be clarified in the SEIS.

2. AA12, 1-15, Purpose and Need, first paragraph.

- 230-7 The SEIS reference to needing 150 to 170 mmbf of timber from AA12 to make a smooth transition under the terms of the long-term timber contract is inconsistent with the historical logging patterns for the Rowan Bay logging camp. First, APC has repeatedly requested more timber than actually logged. This practice has been continued in Phase II for AA12. Second, the contractual requirements are taken as givens. No attempt is made to evaluate environmental modification of the contracts, even though significant modifications in the contractual terms have been made in the past and Congress directed the Forest Service to revise the long-term contracts in 1976 under the National Forest Management Act (NFMA). To not evaluate these opportunities puts the terms of the contract above the considerations for true multiple-use management under NFMA. Please see our general comments: 1. The SEIS is Programmatic, Not Site-Specific and 4. A Lack of a Reasonable Range in Selected Alternatives. Third, there is no rationale on why the Forest Service appears to put a higher priority on the maintenance of timber related employment at the remote and temporary logging camps, than on the employment and needs of other resource users. This implied priority given to the timber industry is manifested in the failure to consider a wide range of reasonable alternatives. There is no explicit legal direction to protect timber employment over other employment, nor are there contractual requirements that the Forest Service must maintain logging camp employment.
- 230-22
- 230-18

230-40 3. AA12, 1-18, 1986-90 Administrative Appeal Issues.

While these issues are listed in generic form and some of the details are presented in Appendix B-4, there is no explicit discussion of these issues in Chapters 2 (Alternatives Including the Proposed Action) and in Chapter 3 (Environmental Consequences). These chapters need to display how the Forest Service deals with or dismisses the issues. Since many of these appeal issues are related to a lack of a reasonable range of alternatives, site-specific analyses and an evaluation of the cumulative impacts, they are very relevant to the SEIS.

230-22 4. AA12, 1-18, Issues Outside the Scope of this SEIS.

Renegotiation of the contracts to provide greater environmental protection and to reduce the amount of timber made available to what is actually needed are reasonable options that the Forest Service fails to evaluate in the SEIS. Major changes, in the location of logging units, the timing of harvest and the volume to be made available, can be made under the long-term timber sale contract. This is best exemplified by the 1985 Agreement between APC and the Forest Service, in which the Suntaheen area was laid out for timber harvesting in the 1981-85 operating plan. This area was subsequently deleted under the 1985 agreement, but then harvested in 1988 under the 1986-90 operating plan. The SEIS eliminates these reasonable alternatives and thus arbitrarily limits the remedies to reduce adverse environmental impacts to non-timber resource users.

5. AA12, 2-1 through 2-3, Formulation of Alternatives and Alternatives Considered But Eliminated From Detailed Study.

230-14

The Forest Service has unduly limited the alternatives evaluated in detailed through the artificial constraints of (1) the time remaining in the 1986-90 operating period, (2) the existing long-term timber sale contractual requirements, and (3) the Record of Decision (ROD) issued for the APC 1986-90 operating period. These constraints limit the analysis to areas where permits exist for log dumps or where there is enough time to construct new logging roads before the end of the 1990 logging season. This means that only a small portion of the unharvested logging units previously considered in the EISs for the 1981-85 and 1986-90 operating periods are being evaluated in Phase II of the SEIS. The above practices are not absolute. The contracts are not inviolate. Major changes, in the location of logging units, the timing of harvest and the volume to be made available, can be made under the long-term timber sale contract. This is best exemplified by the 1985 Agreement between APC and the Forest Service. The practice of carrying over unharvested logging units from one five-year operating period to the next is well established and defeats the argument of a firm 1990 deadline. The unharvested areas from the 1981-85 operating period are now

eight years old. There has been ample time to gain the required permits and plan for roads in advance. The Forest Service approach has also misconstrued the intent of the "no action alternative". The existing no-action alternative is actually defined in terms of a temporary the court agreement designed to limit activities while the Forest Service corrected the NEPA deficiencies in the EISs for the 1981-85 and 1986-90 operating periods. The court agreement was not designed to become the basis for future management options. The range of alternatives in the SEIS should be from no-further harvesting -- i.e., the no-action alternative -- to an alternative meeting all existing contractual requirements free of existing legal encumbrances.

6. AA12, 2-30, Alternative 4, North Kuiu, under general management objectives.

The initiation of harvesting in the Port Camden (VCU 420) and further harvesting in the Kadake drainage (VCU 421) is inconsistent with the subsistence provisions under state and federal law. Rural subsistence users, especially those in Native villages, can demonstrate the customary and traditional dependence on the fish and wildlife habitats in the area. Future use of these resources should not be predicated on the basis of recent use patterns created by a decline in game populations, such as Sitka Black-Tailed deer. The site-specific and cumulative affects of timber harvesting have already depressed deer herds. Further harvesting will only inhibit the rebound in old-growth dependent game populations. This result needs to be explicitly identified in the SEIS as a significant long-term restriction in subsistence use opportunities.

7. AA12, 2-56, Issue 1: Socioeconomic effects of timber harvesting and associated development, item 2.

The "loss" of employment appears to be a total loss. Realistically, it is a marginal loss where the opportunities for other gainful employment exist. Given the fact that APC has routinely substituted other timber for the timber made available under the long-term contracts, it is strong evidence that other timber-related employment opportunities exist. The SEIS needs to display employment effects on the basis of marginal changes in employment, including the fact that other employment opportunities exist.

Timber related employment is based on the volume of timber made available which has always exceeded what is actually cut. This difference has usually ranged from 31 to 47 percent. The projected timber employment in the SEIS needs to factor in the discrepancy between timber made available and timber actually cut.

- 230-19 8. AA12, 2-57, Issue 2: Cost and benefits associated with implementing the 1986-90 Operating Plan.

The analysis of this issue is woefully inadequate. First, the analysis of economic costs and benefits are limited to the costs of logging and manufacturing of timber from the APC sale area. Second, the potential number of timber related jobs and wages are attributed to the timber volume made available under the long-term timber sale contract rather than the expected harvest. Thus, timber related employment is overstated since the contractual timber requirements have always exceeded the actual harvest. This practice skews the equity consideration in favor the timber industry over other forest dependent industries.

The analysis of the Forest Service costs to prepare and administer the APC sale and implement mitigation measures is totally omitted under this issue. These costs are significant, since the Forest Service incurs repeated costs to prepare timber which is never logged or is carried forward into the next five year operating plan.

There is no analysis of the short-term and long-term economic efficiency of the alternatives. The "economic analysis" omits the costs and benefits associated with non-timber resource uses. Likewise, the jobs and wages associated with non-timber resources are totally ignored in the equity analysis. The only mention of non-timber economic sectors is in a socioeconomic overview for the entire southeast Alaska region.

- 230-26 9. AA12, 2-58 through 2-60, Issue 4: Effects of timber harvest and related activities on wildlife habitat.

The analysis of this issue is generic rather than being site-specific. The habitat models have been overly simplified in comparison to the state of the art models that forecast wildlife populations; there is little sensitivity in the analysis to differences between high value and low value habitat, and inaccessible wildlife are valued at the same rate as readily accessible wildlife. Thus, there is no analysis of the site-specific effects on wildlife populations that have been customarily and traditionally used.

- 230-41 10. AA12, 2-61 and 2-62, Effects on visual, recreation, and wilderness resources.

Since the specific management objectives for these resources are not provided, there is no basis from which to determine the impact of logging on these resources. This is true even at the generic level of analysis in the SEIS. For example, the Forest Service claims that additional logging roads will increase access to the interior regions. However, there is no information on the recreational demand for greater access to these interior regions

230-41 nor is there information on the demand for roaded recreation in
 Cont. relation to the existing road system. The existing road system
 would support many times over the existing public demand for
 roaded recreation. There cannot be additional recreational
 benefits if recreation opportunities are in excess of actual use.
 Information on existing recreation and future demands needs to be
 shown in the SEIS in relation to the supply of roaded recreation
 opportunities.

230-27 11. AA12, 2-63, Issue 9: Effects of proposed activities on
 subsistence uses.

The claim that minimal impact can not be substantiated due
 to: (1) the overly simplified wildlife models, (2) the assumed
 indiscriminate substitution of accessible and inaccessible
 wildlife, and (3) the failure to evaluate the effects of logging
 on individual populations which have been traditionally and
 customarily used by subsistence users. See our comments under
 numbers 6 and 9 above.

230-42 12. AA12, 2-63, Management Concern (from 1986-90 FEIS): Use of
 nonstandard logging systems. The predominant and almost
 exclusive use of the hi-lead logging system (standard system) has
 occurred since the 1950s. To suggest that its continued use
 during the APC 1986-90 period was due to the timber recession is
 very misleading. There has been a general failure forestwide to
 adopt the advanced logging systems (non-standard) that are
 prescribed in the Tongass Land Management Plan and funded under
 the Tongass Timber Supply Fund. The rationale for using the Hi-
 lead system during the 1986-90 period should be eliminated from
 the SEIS.

230-19 13. AA12, 2-66, Table 2-10, Economic Contribution of
 Alternatives.

There is a failure to analyze the non-timber related jobs
 and the non-timber economic activities: affected by logging.
 These impacts appear to be stated in terms of all or nothing,
 (the worst case scenario approach), rather than realistic,
 marginal effects. See our comment under number 8 above.

230-49 14. AA12, 2-67, Alternative 1 - No Action-Current Direction and
 No Further Harvest.

The impact on Wrangell Forest Products (WFP) is grossly
 overestimated. In March of 1989, WFP/APC shut down its Wrangell
 mill, claiming that there was a insufficient timber supply and
 that an environmental dispute over filling the adjacent tidelands
 with sawmill residues threatens the mill operations. The mill
 closure is not due to insufficient timber supply. During fiscal
 year 1988, APC harvested 94 million board feet of timber from
 their long-term timber sale, of which 50 mmbf were supplied to

230-49 WFP. WFP/APC had the opportunity to purchase supplemental timber
 Cont. from two sources: (1) new short-term timber sales on the Tongass
 and (2) independent loggers having a backlog of 438 mmbf of uncut
 timber under contract. There was, also, a surplus of available
 Tongass timber last year. In FY1988 the Forest Service sold only
 62 mmbf of 82 mmbf of timber offered in short-term timber sales.
 In addition, 100 mmbf in short-term sales are fully prepared and
 ready for sale in short-term timber sales.

WFP has not aggressively bid on competitive short-term
 timber sales. Even though WFP took over the sawmill in 1984, Mr.
 Seley's firm did not bid on short-term timber sales until 1986.
 From fiscal years 1986-1988, WFP has bid on only 19 of the 80+
 short-term timber sales offered on the Tongass. Of the 19 sales
 WFP has bid on, only nine sales were successfully purchased --
 three of which were purchased without any competition. For the
 sales WFP failed to purchase, less than half the bids made were
 serious competitive bids, i.e. within 25 percent of the highest
 bidder. WFP has failed to bid on 26 short-term timber sales that
 have been offered for sale since 1986 and went unsold.

230-50 15. AA12, 2-68, Alternatives 2,3,4 and 5.

There is a general failure to include the long-term
 cumulative effects of completing the long-term timber sale in the
 discussion of the alternatives. This is extremely important,
 since many of the differences noted between the alternatives are
 only short-term in nature. This is due to the fact that many of
 the areas now protected will ultimately be logged and the Forest
 Service can only defer the logging of these areas over the next
 twenty years.

230-51 16. AA12, 3-8, Figure 3-2, Acres of CFL by Volume Class.

There appears to be gross differences between the TLMP data
 base and the new inventory base used in the Multi-Entry Layout
 Process (MELP). This large difference suggests that there is far
 greater latitude to provide an annual timber supply of 450 mmbf
 from the forestwide timber base, and that supplying this amount
 will require far fewer harvested acres. We are concerned about
 the statistical reliability of the new inventory information,
 based on a memo to the Forest Service from the Alaska Department
 of Fish and Game (ADF&G) concerning problems with the timber type
 data base. A statistical sample of actual forest inventory plots
 failed to replicate the data in the new inventory used in the
 MELP data base. In fact, there was only a poor correlation.
 Thus, key decisions should not be made until the errors can be
 corrected. Attached is the ADF&G memo. We request that it be
 made part of the planning record.

- 230-30 16(a). AA12, 3-13 to 3-14, Timber Harvest Modifications from APC 1981-86 ROD and APC 1986-90 ROD.

There is neither site-specific documentation of these an explanation of they were deemed necessary. There is only a summary of the aggregate changes and possible reasons as to why they occurred. This approach demonstrates the generic approach taken in the SEIS. The SEIS needs to disclose: (1) the site by site, planned actions (plus any modifications), (2) the environmental protection measures employed and (3) the anticipated economic and environmental impacts. The actual timber harvest unit cards which document how and when these harvest units were changed need to be included in the SEIS, along with a discussion on why these changes were deemed the best way to proceed.

- 230-52 17. AA12, 3-16, fourth paragraph.

The claim is made that the Rowan Bay logging camp is primarily served by vendors and businesses from four southeast communities. There is no basis for determining what this means. Expenditures by Rowan Bay residents should be broken down by purchases made in and out of the southeast regional economy. This should include any expenditures made by APC for logging operations from the Rowan Bay camp. The same measurement needs to be made for other southeast residents who are dependent on the resources in the APC sale area, such as commercial fishermen, tourism operators and subsistence users.

- 230-43 18. AA12, 3-18, Wildlife Habitats.

The knowledge of what constitutes high quality deer habitat has greatly improved in recent years. However, the SEIS evaluation of deer habitat impacted by logging does not use this available information. Correcting this failure is a prerequisite before wildlife users can understand the site-specific ramifications of further logging. For example, in VCU 402, 1,292 of the 4,490 acres of deer winter range has been logged. Yet, only one third of the timber planned for harvest has actually been harvested. This implies that in the next sixty years most of the existing old-growth deer winter range will be logged. If some areas within the overall winter habitat are more important than others, then identifying and protecting these site specific areas would minimize the total impact on deer. This type of site-specific use of state of art information is lacking in the SEIS. See our comments under numbers 9 and 11 above. Also, see our comments on Phase I, numbers 25, 26 and 27, dated October 18, 1988.

230-53 19. AA12, 3-23, fifth complete paragraph.

The depressed deer populations are attributed to predation, yet research indicates predation is only one of many factors controlling deer populations. Other factors include weather patterns and habitat conditions. Since deer populations are already depressed on this island, and logging will reduce the carrying capacity for deer over the long-term, the relevant question is how will further logging further inhibit the normal recovery of deer populations? Also, when can the traditional and customary use of these deer populations continue? These questions need to be answered in the SEIS.

230-54 20. AA12, 3-29, Table 3-13, Estimated Deer Numbers Based On Projected Sitka Black-tailed Deer Habitat Capability.

There is no differentiation in the accessibility of these deer to wildlife users. Since the traditional and customary use of deer was widespread throughout southeast Alaska, the SEIS needs to address the specific game populations affected by logging (on a site by site basis) so that wildlife users can determine the impacts of each SEIS alternative. Since the alternatives cover such a large area, affected users may only be interested in the specific impacts over much smaller areas. These site by site impacts cannot be explicitly identified since they are all lumped together. See our comments under numbers 6, 9 and 11.

230-33 21. AA12, 3-53, Visual Resources.

From the discussion, it is not clear how the Visual Quality Objectives (VQO) were assigned or reassigned during the 1986-90 EIS. The Forest Plan was implemented eight years prior to 1986 and the discussion in the SEIS suggests that the assigned VQOs were base on some prior existing inventory and the management direction in the Tongass Land Management Plan. The SEIS needs to identify the management objectives of the original inventoried VQOs and explain why they were reassigned in the 1986-90 EIS. Once these management objectives are established, then the proposed changes (impacts) from further logging can be determined for specific areas. The current SEIS does not allow recreation users to determine the site specific effects that will occur when a particular area is to be logged. For example, VCU 400 represents about 28,000 acres and contains a State Marine Park. Within this VCU, 89 percent of the existing visual quality will be substantially changed by future logging. It is not clear if the remaining 11 percent which is to be protected lies within the viewshed of the park.

22. AA12, 3-61, first complete paragraph.

There is recognition in the SEIS that residents of southeast Alaska wish to "broaden the base of economic activity and to stabilize the existing jobs through a continuity of resource supply." The SEIS does not acknowledge that sixteen small communities in southeast Alaska believe that further logging will threaten their economic base and social well-being. For example, the recent Sealaska Corporation opinion poll shows that a majority of southeast Alaska residents want to protection for more fish and wildlife areas, even it means a loss in timber-related employment.

230-56 23. AA12, 3-63, Table 3-30, Population Change in Southeast Region in 1980 and 1986.

Based on the increased populations for nearly all communities, the SEIS should evaluate the increase in demand for subsistence uses in Analysis Area 12 and how further logging may significantly restrict future opportunities. Demand for subsistence use is most likely to rise, while opportunities will decrease due to habitat changes from logging. Since deer populations are already depressed due to climatic events and predation, further adverse impacts to deer habitat will delay the rebound in deer populations. This is already a significant restriction on future subsistence use opportunities, sport hunting and other uses.

230-31 24. AA12, 4-4, third complete paragraph.

The benefits of precommercial thinning are overstated since little, if any, long-term benefits can be demonstrated for old-growth dependent wildlife. Recent research has not shown that significant wildlife habitat improvements that can be sustained over the 100 year harvest rotation. Precommercial thinning provides employment, but not in significant numbers. In recent years there has been a significant reduction in the amount of precommercial thinning on the Tongass. This is because there has been an excess of 40,000 acres thinned since 1980. Since 1980, an average of 5,274 acres per year have been thinned supporting an average annualized employment level of 33 jobs forest wide. This represents about 2 percent of the Tongass timber dependent jobs in southeast Alaska. Analysis Area 12 would account for only a portion of this forest wide total.

230-32 25. AA12, 4-5 to 4-13, Tables on acres affected by selected categories, i.e., forested habitat, inland wetlands, etc.

The tables summarizing impacts yield little useful information on site-specific impacts. The site-specific detail has been lost in the aggregation of impacts by VCUs. VCUs are large heterogenous areas having a wide variety of conditions,

230-32 habitat capabilities and use opportunities. Second, the acres
 Cont. affected are not translated to losses and gains in game
 populations, resource use opportunities, and economic tradeoffs.
 See our comments under numbers 18 and 20 above.

230-33 26. AA12, 4-34, Visual Resources.

The relative change in visual condition is described without a reference point to determine how this may deviate from the visual quality/recreation management objectives for specific areas and whether these changes will change existing use patterns. Again, there is insufficient detail to determine site-specific effects. See our comments under 21 above.

230-56 27. AA12, 4-38, third complete paragraph.

The McDowell Group study has been criticized for its overly simplified assumptions and erroneous conclusions concerning the employment multipliers. While the estimated impacts may be reasonable, the methodology will not stand up to professional peer review. This information should be replaced by a credible analysis or eliminated from the SEIS.

230-34 28. AA12, 4-42 to 4-45, Subsistence.

The conclusion that minimal impacts will occur to subsistence resources from further logging cannot be substantiated. Overly simplified habitat models were used in lieu of better information. Site-specific impacts were lumped into large heterogenous comparative units averaging about 20,000+ acres in size. Information is lacking on how specific timber harvest units will affect specific fish and wildlife populations. An erroneous assumption has been made that subsistence opportunities can be freely substituted from one area to another. There is no recognition that subsistence uses will increase with growing populations in rural communities. Further logging will only reduce existing habitat-carrying capacity for many old-growth dependent species and will inhibit/prohibit the recovery of populations which have been depressed by other factors.

230-44 29. AA12, 4-46 and 4-47, Assumptions.

The assumption that second-growth stands can be managed to provide cover and forage needs further clarification and is potentially misleading given the readily available information. Recent research indicates that thinning does not result any long-term sustainable food supply for old-growth dependent species such as Black-tailed deer. Thus, the marginal value of the food and cover assumed in managed second-growth needs to be specified.

230-45 The assumption that all commercial forest lands (cfl) are equally subject to impacts is inconsistent with Forest Service research and administrative studies. This is best illustrated by the multi-entry timber sale layout studies. This process looks at the costs to harvest all the operable cfl in a given area over several timber harvest entries -- usually until all the old-growth, operable cfl is harvested. An example, of the anticipated costs and revenues associated with harvesting all the operable cfl is attached as exhibit A. This exhibit shows costs rapidly rising until the last stick of old-growth cfl is logged. The rise occurs because timber is less accessible from one harvest entry to the next and the more productive lands are usually taken first. Costs increase as logging proceeds up the valley to where the trees are on higher and steeper areas. Like costs, the risk of adverse environmental risk and impacts also rise. Thus, the assumed equal probability of impacts is inconsistent with existing information.

230-57 30. AA12, 4-48 to 4-51, Figure 4-2, Table 4-28 and Table 4-29.

Figure 4-2 is an excellent graphic, but does not provide any indication of the operable cfl that is remaining and how much is effectively isolated behind existing backlines. The economic and resource tradeoff associated with logging this isolated timber in the future, i.e., yarding through the reestablished second-growth down-slope, helicopter logging or building additional roads high up on the mountain slopes needs to be disclosed in the SEIS.

230-58 31. AA12, 4-54, Wildlife Species.

Given the crudeness of the deer habitat models, the potential deer numbers are questionable. Of the deer remaining, it is not apparent how many will be readily accessible to hunt or view. See our comments under numbers 20, 23, 25 and 29.

230-46 32. AA12, 4-56 to 4-58, Fisheries/Hydrology, Stream Temperature and Streamside Disturbance Effects.

While research exists on how streamside management may increase fisheries production, there is no comprehensive scientific monitoring information to support the practice of harvesting timber within the 100 foot buffer strips, nor is there information that determines what water quality standards can be met in streams adjacent to logged areas through the best management practices. There is no monitoring information on whether the streamside protection measures are effectively implemented and maintained. Without this site-specific information on the effectiveness of protection measures that are similar to the ones "specified" (by tiering) in the SEIS, there is no way to judge the site-specific and cumulative impacts on water quality and fisheries production.

230-5

230-33 33. AA12, 4-58 to 4-64. Recreation and Visual Quality.

Some of the relative changes in attributes that can affect recreation and visual quality are described. However, there are no reference points to determine how these changes may deviate from the recreation/visual quality objectives for specific areas or how they relate to the expected demand for these resources over the long-term. Only gross changes are described without sufficient detail to determine site-specific effects. See our comments under number 21 above.

230-34 34. AA12, 4-66, Wildlife.

See our comments under number 28 above.

230-35 35. AA12, 4-67, Irreversible and Irretrievable Commitments of Resources.

The SEIS fails to describe the loss of old-growth timber stands as an irreversible and irretrievable loss of resources. There will be an irretrievable loss of old-growth timber over the time horizon chosen to evaluate long-term cumulative effects in the SEIS. The Society of American Foresters recognizes that the best way to manage old-growth timber is to preserve old-growth areas, and that it is not practical to manage second-growth timber stands to achieve old-growth like conditions, i.e. manage these stands over a 250 to 350 year rotation.

230-36 The notion that the no action alternative is an irretrievable commitment of resources is erroneous. Old-growth timber stands are composed of uneven aged trees -- varying in age from one year old to 800 years old. Based on the description in the SEIS, these stands are in dynamic equilibrium, where new trees are established as old trees die off. There are no opportunity costs in the no-action alternative if other timber is made available for harvest. The economic benefits for non-timber resources may well exceed the opportunity costs when substitute timber can not be offered. There are also opportunity costs to other resource uses foregone due to logging. Since the SEIS only evaluates timber costs, there is no meaningful way to evaluate economic tradeoffs, including opportunity costs.

230-37 The no action alternative does not prohibit fisheries enhancement projects per se. These activities are even allowed within designated wilderness areas under special provisions of the Alaska National Interest Lands Conservation Act.

36. AA12, 4-68 to 4-70, Mitigation.

230-29 Outside of the Aleck's Lake trial prescription, the management measures are generic and not site-specific. This generic approach is similar to the management direction in the

230-29 Area Guide. Under this approach there is something for everybody, and all protection measures are assumed to be compatible with one another and logging. Based on my field experience on the Tongass as a forest hydrologist, I find thisd unrealistic. Tradeoffs are inevitable. That is why a discussion of site specific prescriptions for the various alternative logging units and roads needs to be evaluated and displayed before the public can understand how they may be affected by further logging.

230-59 37. AA12, Appendix B-1, No Name Bay Environmental Assessment.

The SEIS states that subsistence uses in No Name Bay would not be displaced, based on the evidence that healthy black bear, waterfowl and salmon populations still exist in the Rowan Bay and Pillar Bay areas after 15 years of logging. This analogy is trivial, without analyzing the site specific and cumulative impacts of logging on subsistence uses in all three areas. This finding is arbitrary and is analogous to the comparison of "do you walk to school and do you carry your lunch."

230-60 38. AA12, Appendix B-2, Environmental Assessment for deletion of units D10 and D11.

This information demonstrates how the SEIS can only be a generic analysis. The company can elect not to harvest certain units -- at least until these units are redesigned to meet APC's satisfaction. Thus, logging units which are planned are often modified during the actual sale layout. See our general comments, item 1, SEIS is Programmatic, Not Site Specific.

230-61 39. AA12, Appendix B-3, Clarification of Analysis Area Formulation And Selection For Further Analysis In the Phase II Process.

This appendix starts to explain how the Forest Service has disposed of some the public comments made on Phase I of the SEIS. However, it neither explains why a very narrow range of alternatives was selected, nor why a generic evaluation was chosen over a site-specific analysis of impacts. See our general comments under 1. SEIS Is Programmatic and Not Site-Specific and 4. An Inadequate Range In Selected Alternatives.

40. AA12, Appendix C-1, Logistical Constraints.

See our general comments under 1. SEIS Is Programmatic and Not Site-Specific and 4. An Inadequate Range In Selected Alternatives.

DEPARTMENT OF FISH AND GAME

SOUTHEAST REGIONAL OFFICE

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June 20, 1989

Mr. Steve Brink, Team Leader
Tongass Plan Revision IDT
USDA Forest Service
8465 Old Dairy Rd.
Juneau, AK 99801

Dear Steve:

We very much appreciated the time you and your staff spent with us on 12 June 1989 explaining problems associated with the timber-type database to be used in the TLMP revision. Because the validity of many analyses in the Revision will depend on reasonably accurate timber-type information, including impacts on wildlife, we believe it is essential that this problem be resolved at the earliest possible date.

At present, our understanding is that a sample of 516 field plots throughout the forest failed to produce data consistent with the timber inventory now in the GIS, i.e. with existing type maps. We have done some preliminary statistical analyses on the data you provided us on 12 June 1989 comparing the timber-type database with the 516 field plots (enclosed), and have arrived at two conclusions:

1. The data from the 516 plots differ significantly, in a statistical sense, from the timber-type data currently in the GIS. In fact, the correlation between rows and columns is very low. As an example, the sample plots indicate Volume Class V in the database may contain more Volume Class VI than it does Volume Class V.
2. At this point, there is no reason to prefer one set of data over the other. That is, serious doubt has been cast on the value of the timber-type maps, but nothing better is yet available.

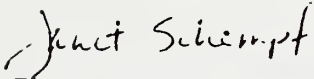
We believe it would be premature to recommend a way to resolve this inconsistency as it relates to the nine wildlife habitat models that require timber volume data until we have more information about the way in which various data sets were assembled. To that end, we suggest a meeting involving IDT members and our staffs, as well as Forest Service staff who are knowledgeable about the data

collection procedures employed in the TLMP I timber database, the type maps in the current GIS, and this new wrinkle of the 516 plots. We suggest including Mr. George Rogers and Mr. Bill Wilson in these discussions if appropriate. Please contact us to suggest a meeting date convenient for you and your staff.

We still anticipate that the wildlife habitat capability models will be evaluated against all available population and habitat use data before they are used in the Tongass Plan Revision. This uncertainty about the timber volume component of the wildlife models increases our concerns about the feasibility of preparing a draft plan and EIS by December 1989.

Again, it is our desire to work cooperatively with your staff to find an early resolution to this potentially serious problem.

Sincerely,


for Richard Reed

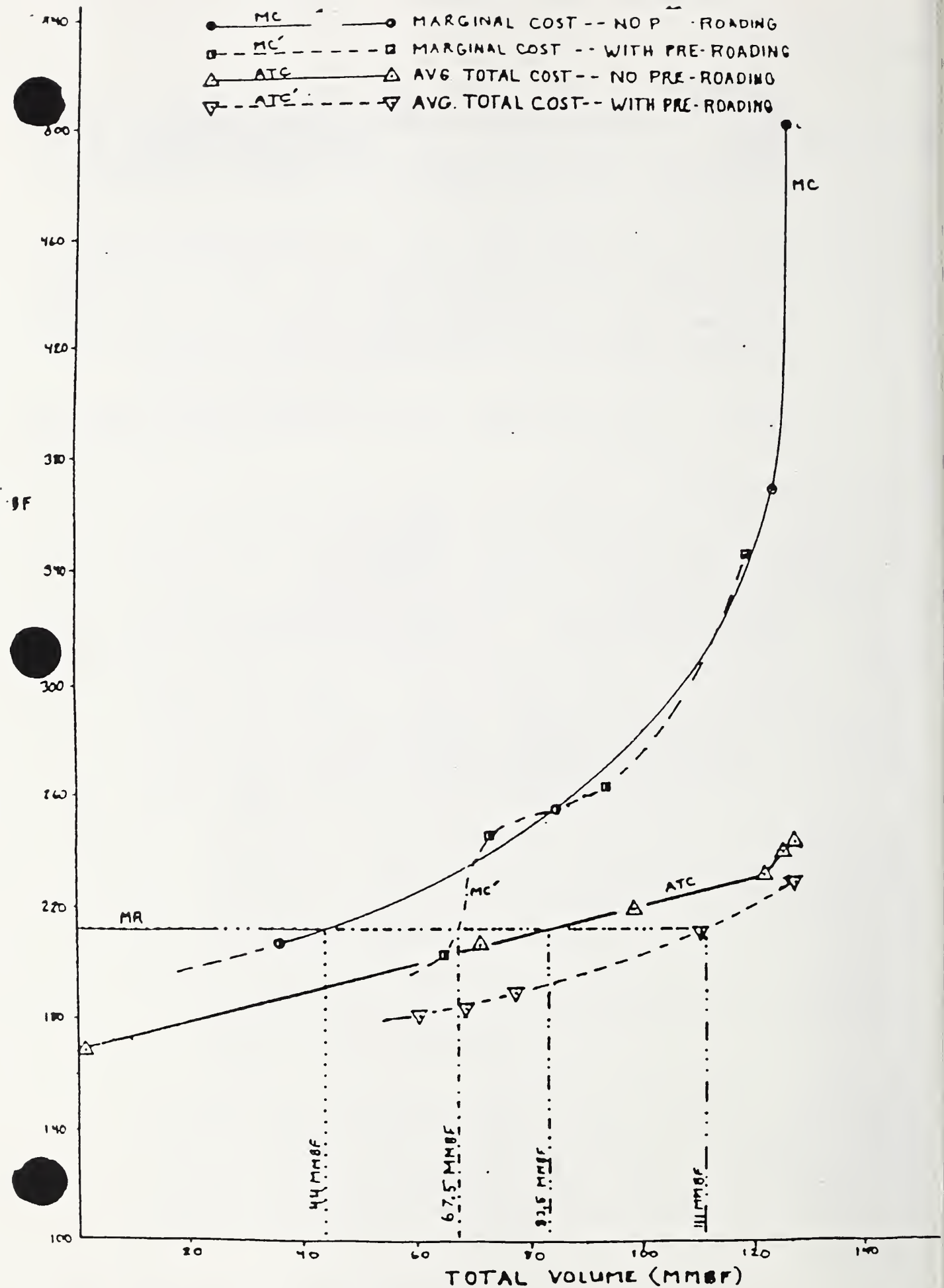
Regional Supervisor
Division of Habitat



Dave Anderson
Regional Supervisor
Division of Wildlife Conservation

Enclosure

cc: Frank Rue, Habitat
Lew Pamplin, Wildlife Conservation
Lana Shea, Habitat
Rod Flynn, Wildlife Conservation
C. Lindh, OMB/DGC



Source: USDA Forest Service, Alaska Region

ANALYSIS AREA 3

Freshwater-Whitestone -- 206,968 acres

230-38 1. AA3, 1-14, Purpose and Need.

230-39 The same problems noted for AA12 apply to AA3. See our comments under numbers 1 and 2 for Analysis Area 12.

2. AA3, 1-17, Issues 1 and 2.

230-19 The cost and benefit analysis that addresses issue 2 is inadequate. The analysis is only limited to timber management and harvesting costs and ignores all other economic costs and benefits such as commercial fisheries. The analysis of
230-18 socioeconomic impacts is also inadequate. It only evaluates this issue in terms of timber-related economic activities. See our general comments under item (6) Inadequate Economic Analysis.

3. AA3, 1-18, 1986-90 Administrative Appeal Issues.

230-40 While these issues are listed in generic form and the details are presented in Appendices B-4 and B-5, there is no explicit discussion of these issues in Chapters 2 (Alternatives Including the Proposed Action) and Chapter 3 (Environmental Consequences). Since many of these appeal issues are related to the failure to (1) consider a reasonable range of alternatives, (2) quantify site-specific impacts, and (3) evaluate cumulative impacts, they are very relevant to the SEIS. See our comments under number 3 for Analysis Area 12.

230-22 4. AA3, 1-18 and 1-19, Under Issues Outside the Scope of this SEIS.

Renegotiation of the contracts to provide greater environmental protection and/or to reduce the amount of timber offered to what is actually needed are reasonable options that the Forest Service can evaluate and implement. Major changes in the location of logging units, the timing of harvest, and the volume to be made available, can be made under the long-term timber sale contract. This is best exemplified by the 1985 Agreement between APC and the Forest Service, in which the Suntaheen area was laid out for timber harvesting in the 1981-85 operating plan. This area was subsequently deleted under the 1985 agreement, but then harvested in 1988 under the 1986-90 operating plan. The SEIS eliminates these reasonable alternatives and thus arbitrarily limits the remedies to reduce adverse environmental impacts to non-timber resource users.

230-14 5. AA3, 2-2, Formulation of Alternatives and Alternatives Considered But Eliminated From Detailed Study.

The Forest Service has unduly constrained the alternatives considered for detailed study by (1) the time remaining in the 1986-90 operating period, (2) the existing long-term timber sale contractual requirements, and (3) the Record of Decision (ROD) issued for the APC 1986-90 operating period. These constraints limit the analysis to areas where permits exist for log dumps or where there is enough time to construct new logging roads before the end of the 1990 logging season. This means that only a small portion of the unharvested logging units previously considered in the EISs for the 1981-85 and 1986-90 operating periods are being evaluated in Phase II of the SEIS.

The above practices are not absolute. First, the contracts are not inviolate. Major changes in the location of logging units, the timing of harvest, and the volume to be made available, can be made under the long-term timber sale contract. This is best exemplified by the 1985 Agreement between APC and the Forest Service. The practice of carrying over unharvested logging units from one five-year operating period to the next is well established and defeats the argument of a firm 1990 deadline. The unharvested areas from the 1981-85 operating period are now eight years old. There has been ample time to gain the required permits and plan for roads in advance.

230-20 The SEIS has misconstrued the intent of the no action and no-further harvesting alternatives. The existing no-action alternative is actually defined in terms of a temporary court agreement designed to limit activities while the Forest Service corrected the NEPA deficiencies in the EISs for the 1981-85 and 1986-90 operating periods. The court agreement was not designed to become the basis for future management options. The no further harvesting alternative is also a misnomer. It assumes that harvesting under the 1986-90 ROD will occur, at least for the 1989 operating. The SEIS needs to evaluate a range of alternatives from no timber harvesting to a logging plan meeting all existing contractual requirements, despite existing legal encumbrances.

230-24 It is not clear why only one State Water Quality standard -- sediment -- is evaluated. The full range of applicable water quality standards need to be evaluated, including turbidity and temperature.

230-25 6. AA3, 2-3, Alternative 1 - No Action-Current Direction.

An alternative of proceeding only until the court agreement expires is vague and should not be combined with the no-action alternative. First, the court agreement is open-ended and

230-25 subject to renegotiation. The original agreement has already
 Cont. been amended for the 1989 operating period. This agreement is a stop-gap measure which recognizes that if logging is to continue until the SEIS is finalized it has to be done in a illegal manner under the provisions of NEPA and ANILCA. Thus, Alternative 1 is founded on an illegal basis and is not a viable and feasible alternative in the SEIS. The intent of the no-action alternative is to evaluate the impacts of not providing any timber for harvest under the 1981-85 and 1986-90 operating periods. Since this was not done in the prior EISs and some harvesting has proceeded, the intent of this alternative is limited to no more logging after the SEIS is finalized, whether or not harvesting is completed in the non-deferred VCUs. If the No-Action alternative means a breach of the contract, then this alternative should describe the social, economic and environmental consequences of this action. See our general comments under number 4., A Lack of a Reasonable Range in Selected Alternatives and our comments under number 5 above.

7. AA3, 2-22, Alternative 2 - No Further Harvest Alternative.

230-25 Like the No-Action Alternative, the No-Further Harvest Alternative is a misnomer. The no-further harvesting alternative is really the current direction and is inclusive of the court agreement and some assumptions that the SEIS will ultimately approve the decisions in the ROD for the 1986-90 operating plan. The SEIS was not to just look at some marginal decisions above and beyond those made in the 1981-85 and 1986-90 EISs, but to remedy the procedural flaws throughout the entire EIS process, recognizing that some harvesting had already been illegally cleared under NEPA.

230-18 8. AA3, 2-97, Issue 1: Socioeconomic effects of timber harvesting and associated development.

We note the same procedural problems in evaluating the alternatives against this issue in Analysis Area 12. Please refer to our comments under number 7 for Analysis Area 12.

230-19 9. AA3, 2-97 and 2-98, Issue 2: Cost and benefits associated with implementing the alternatives.

The analysis of this issue is inadequate. First, the economic costs and benefits evaluated are limited to the (1) costs of logging and manufacturing the timber from the APC sale area and (2) the potential number of timber-related jobs and wages attributed to the timber volume made available under the long-term timber sale contract. Second, timber-related employment that is attributed to the alternatives is overstated, since each alternative represents a contractual timber requirement to make timber available which exceeds the actual anticipated harvest. This overstates the equity considerations

- 230-19 in favor of the timber industry over other forest dependent industries.

The analysis of Forest Service costs to prepare and administer the APC sale and implement mitigation measures are totally omitted under this issue. These costs are significant, since the Forest Service incurs the repeated costs of preparing timber which is not logged and is then carried forward into the next five year operating plan.

There is no analysis of the short-term and long-term economic efficiency of the alternatives. The "economic analysis" omits the costs and benefits associated with non-timber resource uses. The jobs and wages associated with non-timber resources are also totally ignored in the equity analysis. The only mention of these non-timber economic sectors is in a socioeconomic overview for the entire southeast Alaska region, which is not particularly helpful.

- 230-26 10. AA3, 2-99 and 2-100, Issue 4: Effects of timber harvest and related activities on wildlife habitat.

The analysis of this issue is generic rather than being site-specific. First, the habitat models have been overly simplified in comparison to the state of the art models that forecast wildlife populations. This means that there is little sensitivity in the analysis to differences between high value and low value habitat. Second, inaccessible wildlife are valued at the same rate as readily accessible wildlife. Thus, there is no analysis of site-specific effects on wildlife populations that have been customarily and traditionally used.

- 230-41 11. AA3, 2-102 and 2-103, Issue 8: Effects on visual, recreation, and wilderness resources.

We note the same procedural problems in evaluating the alternatives against this issue in Analysis Area 12. Please refer to our comments under number 11 for Analysis Area 12.

- 230-27 12. AA3, 2-104, Appeal Issue: Effects of proposed activities on subsistence uses.

The claim of minor or no effects can not be substantiated due to the overly simplified wildlife models, the assumed indiscriminate substitution of inaccessible for accessible wildlife and the failure to explicitly consider an increase in the future demand for subsistence uses. Managing for increased competition for wildlife will require more than managing road access. Declining wildlife populations due to logging and an increase in subsistence users and sport-hunters and other users will have to be considered.

- 230-42 13. AA3, 2-104, Management Concern (from 1986-90 FEIS): Use of nonstandard logging system.

See our comments under number 12 for Analysis Area 12.

- 230-19 14. AA3, 2-106 to 2-108, Economic Comparison.

There is a failure to analyze the non-timber related jobs and the non-timber economic activities affected by logging. In addition, their impacts appear to be stated in terms of all or nothing -- the worst case scenario approach -- rather than realistic, marginal effects. See our comment under number 8 above.

- 230-29 15. AA3, 2-110 and 2-111, Standard and Guidelines and Mitigation Measures.

The descriptions of the standards and guidelines and mitigation measures in the 1981-86 FEIS are generic and not site-specific. Under this approach there is no recognition that tradeoffs are inevitable and that mitigation measures must be customized for each application. That is why a discussion of site specific prescriptions for the various alternative logging units and roads needs to be evaluated and displayed in the SEIS.

- 230-30 16. AA3, 3-15 and 3-16, Timber Harvest Modifications from APC 1981-86 ROD and APC 1986-90 ROD.

There is no site-specific documentation of these modifications nor why they were deemed necessary. There is only a summary of the aggregate changes and a list of possible reasons as to why they occurred. This approach demonstrates the generic approach taken in the SEIS. The SEIS needs to disclose the site by site planned actions (including any subsequent modifications), the environmental protection measures employed, and the anticipated economic and environmental impacts of the planned actions. The actual timber harvest unit cards which document how and when these harvest units were changed need to be included in the SEIS, along with a discussion on why these changes were deemed the best way to proceed.

- 230-43 17. AA3, 3-19 to 3-29, Wildlife.

The knowledge of what constitutes high quality deer habitat has greatly improved in recent years. However, the SEIS evaluation of deer habitat impacted by logging does not use this available information. Correcting this failure is a prerequisite before wildlife users can understand the site-specific ramifications of further logging. If some areas within the overall winter habitat are more important than others, then identifying and protecting these site specific areas would

230-43 minimize the total impacts. This type of site-specific, detailed
Cont. information is lacking in the SEIS. See our comments on Phase I, number 27, dated October 18, 1988.

230-33 18. AA3, 3-58 to 3-64. Visual Resources.

We note that the procedure to assign Visual Quality Objectives for the VCUs in Analysis 3 (AA3) appears to be different from how it was assigned in Analysis Area 12 (AA12). For AA12, SEIS suggests that the assigned VQOs were based on (1) some prior existing inventory and (2) the management direction in the Tongass Land Management Plan. For AA3, the SEIS only states that the VQOs were assigned during the preparation of 1986-90 EIS. In both cases, the SEIS needs to describe what the management objectives are for each area and why they may have been changed in the 1986-90 EIS. Once these management objectives are established, then the proposed changes (impacts) from further logging can be determined for specific areas.

230-32 19. AA3, 4-13 to 4-22, Tables on acres affected by selected categories, i.e., forested habitat, inland wetlands, etc.

The tables summarizing impacts provide little information on site-specific impacts. The site-specific detail has been lost in the aggregation of impacts by VCUs. VCUs are large heterogenous areas having a wide variety of conditions, habitat capabilities and use opportunities. The estimated changes in wildlife population in Tables 4-17 to 4-18, do not allow the public to determine which specific game populations are affected, i.e., whether they have been traditionally and customarily used or whether they are remote and inaccessible.

230-33 20. AA3, 4-53 to 4-56, Visual Resources.

The relative change in visual condition is described without a reference point to determine how this may deviate from the visual quality/recreation management objectives for specific areas and whether these changes will change existing use patterns. Again, there is insufficient detail to determine site-specific effects.

230-18 21. AA3, 4-58 to 4-62, Economic Impacts.

The economic analysis is inadequate. It only evaluates the alternatives in terms of timber related economic activities and ignores all other economic activities affected by logging, i.e., commercial fishing, tourism and subsistence use. See our general comments under number 6, Inadequate Economic Analysis.

230-34 22. AA3, 4-63 to 4-64, Subsistence.

The conclusion that minimal impacts from further logging will occur to subsistence resources cannot be substantiated. Overly simplified deer habitat models were used in lieu of better information. Site-specific impacts were lumped into large heterogenous comparative units averaging over 20,000 acres in size. Information is lacking on how specific timber harvest units will affect specific fish and wildlife populations. An erroneous assumption has been made that subsistence opportunities can be freely substituted from one area to another. There is no recognition that subsistence uses will increase with growing populations in rural communities and that greater competition for wildlife will result from the increasing demand for sport-hunting while further reductions in many old-growth dependent species will result from logging.

230-44 23. AA3, 4-68 and 4-69, Assumptions.

The assumption that second-growth stands can be managed to provide cover and forage needs further clarification and is potentially misleading given the readily available information. Recent research indicates that thinning does not result in any long-term sustainable food supply for old-growth dependent species such as Black-tailed deer. Thus, the marginal value of the food and cover assumed in managed second-growth needs to be specified.

230-45

The assumption that all commercially forest lands (cfl) are equally subject to impacts is inconsistent with Forest Service research and administrative studies. This is best illustrated by the multi-entry timber sale layout studies. This process looks at the costs to harvest all the operable cfl in a given area over several timber harvest entries -- usually until all the old-growth, operable cfl is harvested. An example of the anticipated costs and revenues associated with harvesting all the operable cfl is attached as exhibit A. This exhibit shows costs rapidly rising until the last stick of old-growth cfl is logged. The rise occurs because timber is less accessible from one harvest entry to the next and the more productive lands are usually taken first. Costs increase as logging proceeds up the valley to where the trees are on higher and steeper areas. Like costs, the risk of adverse environmental risk and impacts also rise. Thus, the assumed equal probability of impacts is inconsistent with existing information.

230-46 24. AA3, 4-81 to 4-83, Fisheries/Hydrology, Stream Temperature and Streamside Disturbance Effects.

While research exists on how streamside management may increase fisheries production, there is no comprehensive scientific monitoring information to support the practice of

230-46 harvesting timber within the 100 foot buffer strips, nor is there information that determines what water quality standards can be met in streams adjacent to logged areas through best management practices. There is no monitoring information on whether the streamside protection measures are effectively implemented and maintained. The monitoring information cited on pages 4-43 is not conclusive nor can it be professionally extrapolated to the wide range of environmental conditions on which logging is conducted. Much of the Kadashan information has never been fully evaluated and some of the data has been lost.

230-48 The lack of monitoring information in general and the discontinuity of the Kadashan information in particular were major stumbling blocks for a group of resource specialists that built the Southeast Alaska Multiresource Model (SAMM). While the authors of SAMM exploited all available monitoring information available in southeast Alaska, the documentation of the model states that it is to be used as a educational tool only and that the supporting information was not strong enough to make resource management decisions.

230-47 Without site-specific information on the effectiveness of protection measures that are similar to the ones "specified" (by tiering) in the SEIS, there is no way to judge what are the site-specific and cumulative impacts on water quality and fisheries production.

230-33 25. AA3, 4-88 to 4-93, Recreation and Visual Quality.

The same problems noted for AA12 apply to AA3. See our comments under numbers 26 and 33 for Analysis Area 12.

230-35 26. AA3, 4-98, Irreversible and Irretrievable Commitments of Resources.

The SEIS fails to describe the loss of old-growth timber stands as a irreversible and irretrievable loss of resources. There will be an irretrievable loss of old-growth timber over the time horizon chosen to evaluate long-term cumulative effects in the SEIS. The Society of American Foresters recognizes that the best way to manage old-growth timber is to preserve old-growth areas, and that is it not practical to manage second-growth timber stands to achieve old-growth like conditions, i.e. manage these stands over a 250 to 350 year rotation.

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230-36 made available for harvest. The economic benefits for non-timber
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230-29 27. AA3, 4-99, Mitigation.

The management measures are generic and not site-specific.
This generic approach is similar to the management direction in
the Area Guide. Under this approach all protection measures are
assumed to be compatible with one another and logging. This is
simply not realistic based on my field experience on the Tongass
as a forest hydrologist. Tradeoffs are inevitable. That is why
a discussion of site specific prescriptions for the various
alternative logging units and roads needs to be evaluated and
displayed before the public can understand how they may be
affected by further logging.

ANALYSIS AREA 6

Corner Bay -- 170,607 acres

230-38 1. AA6, 1-15, Purpose and Need.

230-39 The same problems noted for Analysis Area 12 apply to Analysis Area 6. See our comments under numbers 1 and 2 for Analysis Area 12.

230-18 2. AA6, 1-17, Issues 1 and 2.

230-19

The cost and benefit analysis that addresses issue 2 is inadequate. The analysis is only limited to timber management and harvesting costs and ignores all other economic costs and benefits. Likewise, the analysis of socioeconomic impacts is inadequate. Impacts are only evaluated in terms of timber related economic activities. See our general comments under number 6, Inadequate Economic Analysis.

230-40 3. AA6, 1-19, 1986-90 Administrative Appeal Issues.

We note the same problems in this section as in the same section for the other three analysis areas. See our comments for Analysis Area 12 under number 3.

230-22 4. AA6, 1-20, Issues Outside the Scope of this SEIS, Renegotiate the Contract.

We note the same problems in this section as in the same section for the other three analysis areas. See our comments for Analysis Area 12 under number 4.

230-23 5. AA6, 1-18, Under Issues Outside the Scope of this SEIS, Reasonably Foreseeable Future.

We note that while long-term cumulative effects have been added to the analysis, the time horizon only extends to the end of the contract, rather than to the first complete harvest rotation under the Forest Plan. Both time frames are important to understanding the context in which the Forest Service plans further logging of the APC sale area. For example, the practice of relying almost exclusively on the Hi-lead timber yarding system has economically isolated much of the commercial forest land (cfl) that is planned for timber harvest under the forest plan. Instead of fully utilizing all the cfl within a given area, only the best and cheapest timber is taken because the Hi-lead system is used in lieu of other yarding systems. Consequently, the Forest Service chooses to open new areas rather

230-23 than requiring yarding systems that more fully utilize the timber
 Cont. base in any given area. A good example of this situation is VCU
 244, Sitkoh Lake.

230-14 6. AA6, 2-2, Formulation of Alternatives and Alternatives
 230-20 Considered But Eliminated From Detailed Study.

The same problems noted for Analysis Areas 3 and 12 apply to
 Analysis Area 6. See our comments under number 5 for Analysis
 Area 3.

230-25 7. AA6, 2-3, Alternative 1 - No-Action, Current Direction, No
 Further Harvest.

An alternative of proceeding only until the court agreement
 expires is vague and should not be combined with the no-action
 alternative. First, the court agreement is open-ended and
 subject to renegotiation. The original agreement has already
 been amended for the 1989 operating period. This agreement is a
 stop-gap measure which recognizes that if logging is to continue
 until the SEIS is finalized it has to be done in a illegal manner
 under NEPA and ANILCA. Thus, Alternative 1 is founded on an
 illegal basis and is not a viable and feasible alternative after
 the SEIS is finalized. Second, the intent of the no-action
 alternative is to evaluate the impacts of not providing any
 timber for harvest under the 1981-85 and 1986-90 operating
 periods. Since this was not done in the prior EISs and some
 harvesting has proceeded, the intent of this alternative is
 limited to no more logging after the SEIS is finalized. If this
 means a breach of the contract, then this alternative should
 describe the social economic and environmental consequences of
 this action.

The current direction (under the court agreement) is quite
 different from the no-action alternative. Again, the actual
 current direction is a short-term, illegal stop-gap measure.
 Combining the two alternatives is inappropriate and artificially
 limits the real range of options the Forest Service can evaluate.
 See our general comments, item (4) A Lack of a Reasonable Range
 in Selected Alternatives.

230-8 8. AA6, 2-22, Figure 2-2b, VCU 239 Kook Lake; Plan view.

There are major status changes in the harvest units shown on
 the maps in the Phase I and Phase II documents. For example, two
 large units on the north side of Kook Lake have been changed as
 proposed harvest areas in Phase I to harvested areas in Phase II.
 There are harvested units in Phase II that were not shown as
 proposed or harvested units in Phase I. Units that are shown as
 harvested in Phase I are now shown as proposed units in Phase II.
 Either these are major errors, or the argument that the NEPA
 documents for the long-term timber sales do not represent actual

- 230-8 on-the-ground conditions is strengthened. In any case, there is neither site-specific documentation of these modifications or an explanation of why they were deemed necessary. This approach demonstrates the generic approach taken in the SEIS. The SEIS
- 230-4 needs to disclose the site by site planned actions (including any subsequent modifications), the environmental protection measures employed, and the anticipated economic and environmental impacts of the planned actions. The actual timber harvest unit cards, which document how and when these harvest units were changed, need to be included in the SEIS, along with a discussion on why these changes were deemed the best way to proceed.

- 230-8 Similar comparisons between the Phase I and the Phase II documents are impossible since areas like VCU 244, Sitkoh Lake, were not included in the Phase I document.

The noted discrepancies in the harvest units above, demonstrate the flaws in using the court agreement as the basis for evaluating changes between one or more of the SEIS alternatives.

- 230-27 9. AA6, 2-93, Issue 1: Socioeconomic effects of timber harvesting and associated development.

We note the same procedural problems in evaluating the alternatives against this issue as in Analysis Area 12. Please refer to our comments under number 7 for Analysis Area 12.

- 230-19 10. AA6, 2-93, Issue 2: Cost and benefits associated with implementing the alternatives.

The analysis of this issue is inadequate. First, the economic costs and benefits evaluated are limited to (1) the costs of logging and manufacturing timber from the APC sale area. Second, the potential number of timber related jobs and wages are attributed to the timber volume made available under the long-term timber sale contract rather than the expected timber to be harvested. Thus, timber related employment is overstated since the timber made available has always exceeded the actual harvest. This overstates the equity considerations in favor of the timber industry over other forest dependent industries.

The analysis of Forest Service costs to prepare and administer the APC sale and implement mitigation measures are totally omitted under this issue. These costs are significant, since the Forest Service incurs the repeated costs of preparing timber which is not logged and is then carried forward into the next five year operating plan.

There is no analysis of the short-term and long-term economic efficiency of the alternatives. The "economic analysis" omits the costs and benefits associated with non-timber resource uses. The jobs and wages associated with non-timber resources

230-19 are also totally ignored in the equity analysis. The only
 Cont. mention of these non-timber, economic sectors is in a socioeconomic overview for the entire southeast Alaska.

230-26 11. AA6, 2-100, Issue 4: Effects of timber harvest and related activities on wildlife habitat.

See our comments under number 9 for Analysis Area 12

230-27 12. AA6, 2-107, Issue 9: Effects of proposed activities on subsistence uses.

The claims of minor or no effects can not be substantiated due to the assumed indiscriminate substitution of inaccessible for accessible wildlife and the failure to explicitly consider an increase in the future demand for subsistence uses and the decline in deer populations in conjunction with changes in hunting regulations for fish and game.

230-19 13. AA6, 2-109 and 2-110, Economic Comparison of Alternatives:

There is a failure to analyze the non-timber related jobs and the non-timber economic activities effected by logging. In addition, their impacts appear to be stated in terms of all or nothing -- a worst case scenario approach -- rather than realistic, marginal effects. See our comment number 9 above.

230-29 14. AA6, 2-112, Standard and Guidelines and Mitigation Measures.

The descriptions of the standards and guidelines and mitigation measures in the 1986-90 EIS are generic and not site-specific. Under this approach there is no recognition that tradeoffs are inevitable and that mitigation measures must be customized for each application. That is why a discussion of site specific prescriptions for the various alternative logging units and roads needs to be evaluated and displayed in the SEIS.

230-30 15. AA6, 3-14, Timber Harvest Modifications from APC 1981-86 ROD and APC 1986-90 ROD.

See our comments under number 8 above.

230-43 16. AA6, 3-17 to 3-22, Wildlife.

The knowledge of what constitutes high quality deer habitat has greatly improved in recent years. However, the SEIS evaluation of deer habitat impacted by logging does not use this available information. Correcting this failure is a prerequisite before wildlife users can understand the site-specific ramifications of further logging. If some areas within the overall winter habitat are more important than others, then identifying and protecting these site specific areas would

230-43 minimize the total impacts. This type of site-specific, detailed
 Cont. information is lacking in the SEIS. See our comments on Phase I,
 number 27, dated October 18, 1988.

230-33 17. AA6, 4-36 to 4-41, Visual Resources.

The same problems noted for Analysis Area 12 apply to Analysis Area 6. See our comments under number 26 for Analysis Area 12.

230-18 18. AA6, 4-42 to 4-47, Economic Impacts.

The economic analysis is inadequate. It only evaluates the alternatives in terms of timber related economic activities and ignores all other economic activities affected by logging, i.e., commercial fishing, tourism and subsistence use. See our general comments under number 6, Inadequate Economic Analysis.

230-46 19. AA6, 4-60 to 4-64, Fisheries/Hydrology, Stream Temperature and Streamside Disturbance Effects.

While research exists on how streamside management may increase fisheries production, there is no comprehensive scientific monitoring information to support the practice of harvesting timber within the 100 foot buffer strips, nor is there information that determines what water quality standards can be met in streams adjacent to logged areas through the best management practices. There is no monitoring information on whether the streamside protection measures are effectively implemented and maintained. The monitoring information cited on page 4-43 is not conclusive nor can it be professionally extrapolated to the wide range of environmental conditions on which logging is conducted. Much of the Kadashan information has never been fully evaluated and some of the data has been lost.

230-5

230-48 The lack of monitoring information in general and the discontinuity of the Kadashan information in particular were major stumbling blocks for the group of resource specialists that built the Southeast Alaska Multiresource Model (SAMM). While the authors of SAMM exploited all available monitoring information available in southeast Alaska, the documentation of the model states that it is to be used as a educational tool only and that the supporting information is not strong enough to make resource management decisions.

230-47 Without site-specific information on the effectiveness of protection measures that are similar to the ones "specified" (by tiering) in the SEIS, there is no way to judge what the site-specific and cumulative impacts on water quality and fisheries production will be.

- 230-33 20. AA6, 4-65 to 4-70, Recreation and Visual Quality.

The same problems noted for Analysis Areas 12 apply to Analysis Area 3. See our comments under numbers 26 and 33 for Analysis Area 12.

- 230-34 21. AA6, 4-71 to 4-73, Subsistence.

The conclusion that no impacts from further logging will occur to subsistence cannot be substantiated. Overly simplified deer habitat models were used in lieu of better information. Site-specific impacts were lumped into large heterogenous comparative units averaging over 20,000 acres in size. Information is lacking on how specific timber harvest units will affect specific fish and wildlife populations. An erroneous assumption has been made that subsistence opportunities can be freely substituted from one area to another. There is no recognition that subsistence use will increase with growing populations in rural communities, or that a greater competition for wildlife will result from the increasing demand for sport-hunting, and further reductions in many old-growth dependent species from logging.

The time frame of reasonable foreseeable future has been arbitrarily shortened to the end of the APC contract in year 2011, rather than to the end of the first harvest rotation in 2080. The information, technology and operational models are available to the Forest Service to extend the time horizon of the reasonably foreseeable future to the end of the first harvest rotation in year 2080. See our comment under number 5 above.

- 230-35 22. AA6, 4-74, Irreversible and Irretrievable Commitments of Resources.

The SEIS fails to describe the loss of old-growth timber stands as an irreversible and irretrievable loss of resources. There will be an irretrievable loss of old-growth timber over the time horizon chosen to evaluate long-term cumulative effects in the SEIS. The Society of American Foresters recognizes that the best way to manage for old-growth timber is to preserve old-growth areas and that it is not practical to manage second-growth timber stands to achieve old-growth like conditions, i.e. manage these stands over a 250 to 350 year rotation.

- 230-36 The notion that the no action alternative is an irretrievable commitment of resources is erroneous. Old-growth timber stands are composed of uneven aged trees -- varying in age from one year old to 800 years old. Based on the description in the SEIS, these stands are in dynamic equilibrium, where new trees are established as old trees die off. There are no opportunity costs in the no-action alternative if other timber is

230-36 made available for harvest. The economic benefits for non-timber
Cont. resources may well exceed the opportunity costs when substitute
timber can not be offered. Likewise, there are opportunity costs
to other resource uses which are foregone after logging. Because
the SEIS only evaluates timber costs, there is no meaningful way
to evaluate economic tradeoffs, including opportunity costs.

230-29 23. AA6, 4-75 to 4-76, Mitigation.

The management measures are generic and not site-specific.
This generic approach is similar to the management direction in
the Area Guide. Under this approach all protection measures are
assumed to be compatible with one another and with logging.
Based on field experience, this is not realistic. Tradeoffs are
inevitable. That is why a discussion of site specific
prescriptions for the various alternative logging units and roads
needs to be evaluated and displayed before the public can
understand how they may be effected by further logging.

ANALYSIS AREA 2

Mud Bay-Neka -- 250,786 acres

- 230-22 1. AA2, 1-19, Under Issues Outside the Scope of this SEIS, Renegotiate the Contract.

We note the same problems in this section as in the same section for the three other analysis areas. See our comments for Analysis Area 12 under number 4.

- 230-23 2. AA2, 1-19, Under Issues Outside the Scope of this SEIS, Reasonably Foreseeable Future.

We note the same problems in this section as in the same section for the other three analysis areas. See our comments under number 4 for Analysis Area 12 and under number 5 for Analysis Area 6.

- 230-14 3. AA2, 2-1, Formulation of Alternatives and Alternatives
230-20 Considered But Eliminated From Detailed Study.

The same problems noted for Analysis Areas 3,6 and 12 apply to Analysis Area 2. See our comments under number 5 for Analysis Area 3.

4. AA2, 2-4, Alternative 1 - No-Action, Current Direction, No Further Harvest.

- 230-25 An alternative of proceeding only until the court agreement expires is vague and should not be combined with the no-action alternative. First, the court agreement is open-ended and subject to renegotiation. The original agreement has already been amended for the 1989 operating period. This agreement is a stop-gap measure which recognizes that if logging is to continue until the SEIS is finalized, it has to be done in a illegal manner under NEPA and ANILCA. Thus, Alternative 1 is based on a illegal foundation and is not a viable and feasible alternative after the SEIS is finalized. Second, the intent of the no-action alternative is to evaluate the impacts of not providing any timber for harvest under the 1981-85 and 1986-90 operating periods. Since this was not done in the prior EISs and some harvesting has proceeded, the intent of this alternative is limited to no more logging after the SEIS is finalized. If this means a breach of the contract, then this alternative should describe the social, economic and environmental consequences of this action.

See our general comments under number 4, A Lack of a Reasonable Range in Selected Alternatives.

- 230-8 5. AA2, 2-7 through 2-24, Figures 2-1a, 2-1d, 2-2a, 2-2b, and 2-3a and 2-3d.

There may be major status changes in the harvest units in VCUs 193 and 201 between the Phase I and Phase II documents. Major changes were noted in the harvest status units for Analysis Area 6. However, similar comparisons cannot be made for Analysis Area 2 since the Phase I maps did not include the northern portion of Analysis 2, most notably VCUs 193 and 201.

- 230-18 6. AA2, 2-32, Issue 1: Socioeconomic effects of timber harvesting and associated development.

We note the same procedural problems in evaluating the alternatives against this issue in Analysis Area 12. Please refer to our comments under number 7 for Analysis Area 12.

- 230-19 7. AA2, 2-32, Issue 2: Cost and benefits associated with implementing the alternatives.

The analysis of this issue is inadequate. First, the economic costs and benefits evaluated are limited to the costs of logging and manufacturing timber from the APC sale area. The potential number of timber related jobs and wages are attributed to the timber volume made available under the long-term timber sale contract rather than the expected timber to be harvested. Thus, timber related employment is overstated since the timber made available has always exceeded the actual harvest. This overstates the equity considerations in favor of the timber industry over other forest dependent industries.

The analysis of Forest Service costs to prepare and administer the APC sale and implement mitigation measures are totally omitted under this issue. These costs are significant, since the Forest Service incurs the repeated costs of preparing timber which is not logged and is then carried forward into the next five year operating plan.

There is no analysis of the short-term and long-term economic efficiency of the alternatives. The "economic analysis" omits the costs and benefits associated with non-timber resource uses. Likewise, the jobs and wages associated with non-timber resources are totally ignored in the equity analysis. The only mention of these non-timber, economic sectors is in a socioeconomic overview for the entire southeast Alaska region.

- 230-26 8. AA2, 2-33, Issue 4: Effects of timber harvest and related activities on wildlife habitat.

See our comments under number 9 for Analysis Area 12.

- 230-27 9. AA2, 2-37 and 2-38, Issue 9: Effects of proposed activities on subsistence uses.

See our comments under number 11 for Analysis Area 12.

- 230-19 10. AA2, 2-40 to 2-41 Economic Comparison of Alternatives:

There is a failure to analyze the non-timber related jobs and the non-timber economic activities affected by logging. In addition, their impacts appear to be stated in terms of all or nothing -- a worst case scenario approach -- rather than realistic, marginal effects. See our comment number 7 above.

- 230-29 11. AA2, 2-42, Standard and Guidelines and Mitigation Measures.

The descriptions of the standards and guidelines and mitigation measures in the 1986-90 EIS are generic and not site-specific. Under this approach there is no recognition that tradeoffs are inevitable and that mitigation measures must be customized for each application. That is why a discussion of site specific prescriptions for the various alternative logging units and roads needs to be evaluated and displayed in the SEIS.

12. AA2, 3-12 to 3-14, Timber Harvest Modifications from APC 1981-86 ROD and APC 1986-90 ROD.

- 230-30 There is no site-specific documentation of these changes nor why these changes were deemed necessary. There is only a summary of the aggregate changes and possible reasons as to why they occurred. This approach demonstrates the generic approach taken in the SEIS. The SEIS needs to disclose the site by site planned actions (plus any modifications), the environmental protection measures employed, and the anticipated economic and environmental impacts. The actual timber harvest unit cards which document how and when these harvest units were changed need to be included in the SEIS, along with a discussion of why these changes were deemed the best way to proceed.

- 230-31 13. AA2, 3-16 and 3-25, Wildlife.

The same problems noted for Analysis Area 12 apply to Analysis Area 6. See our comments under numbers 24 and 25 for Analysis Area 12.

- 230-32 14. AA2, 4-7 to 4-16, Tables on acres effected by selected categories, i.e., forested habitat, inland wetlands, etc.

The same problems noted for Analysis Area 12 apply to Analysis Area 6. See our comments under number 25 for Analysis Area 12.

- 230-33 15. AA2, 4-31 to 4-33, Visual Resources.

See our comments under number 17 for Analysis Area 6.

- 230-18 16. AA2, 4-34 to 4-38, Economic Impacts.

The economic analysis is inadequate. It only evaluates the alternatives in terms of timber related economic activities and ignores all other economic activities effected by logging, i.e., commercial fishing, tourism and subsistence use. See our general comments under number 6, Inadequate Economic Analysis.

- 230-33 17. AA2, 4-57 to 4-62, Recreation and Visual Quality.

The same problems noted for Analysis Areas 12 apply to Analysis Area 3. See our comments under numbers 26 and 33 for Analysis Area 12.

- 230-34 18. AA2, 4-63 to 4-66, Subsistence.

The conclusion that no impacts will occur to subsistence resources from further logging cannot be substantiated. Overly simplified deer habitat models were used in lieu of better information. Site-specific impacts were lumped into large heterogenous comparative units averaging over 20,000 acres in size. Information is lacking on how specific timber harvest units will affect specific fish and wildlife populations. An erroneous assumption has been made that subsistence opportunities can be freely substituted from one area to another. There is no recognition that subsistence uses will increase with growing populations in rural communities and greater competition for wildlife will result from the increasing demand for sport-hunting while further reductions in many old-growth dependent species will result from logging. The time frame of reasonable foreseeable future has been arbitrarily shortened to the end of the APC contract in year 2011, rather than to the end of the first harvest rotation in 2080. The information, technology and operational models are available to the Forest Service to extend the time horizon of the reasonably foreseeable future to the end of the first harvest rotation -- to the year 2080.

- 230-35 19. AA2, 4-67, Irreversible and Irretrievable Commitments of Resources.

The SEIS fails to describe the loss of old-growth timber stands as an irreversible and irretrievable loss of resources. There will be an irretrievable loss of old-growth timber over the time horizon chosen to evaluate long-term cumulative effects in the SEIS. The Society of American Foresters recognizes that the best way to manage for old-growth timber is to preserve

230-35 old-growth areas and that is it not practical to manage second-
 Cont. growth timber stands to achieve old-growth like conditions, i.e.
 manage these stands over a 250 to 350 year rotation.

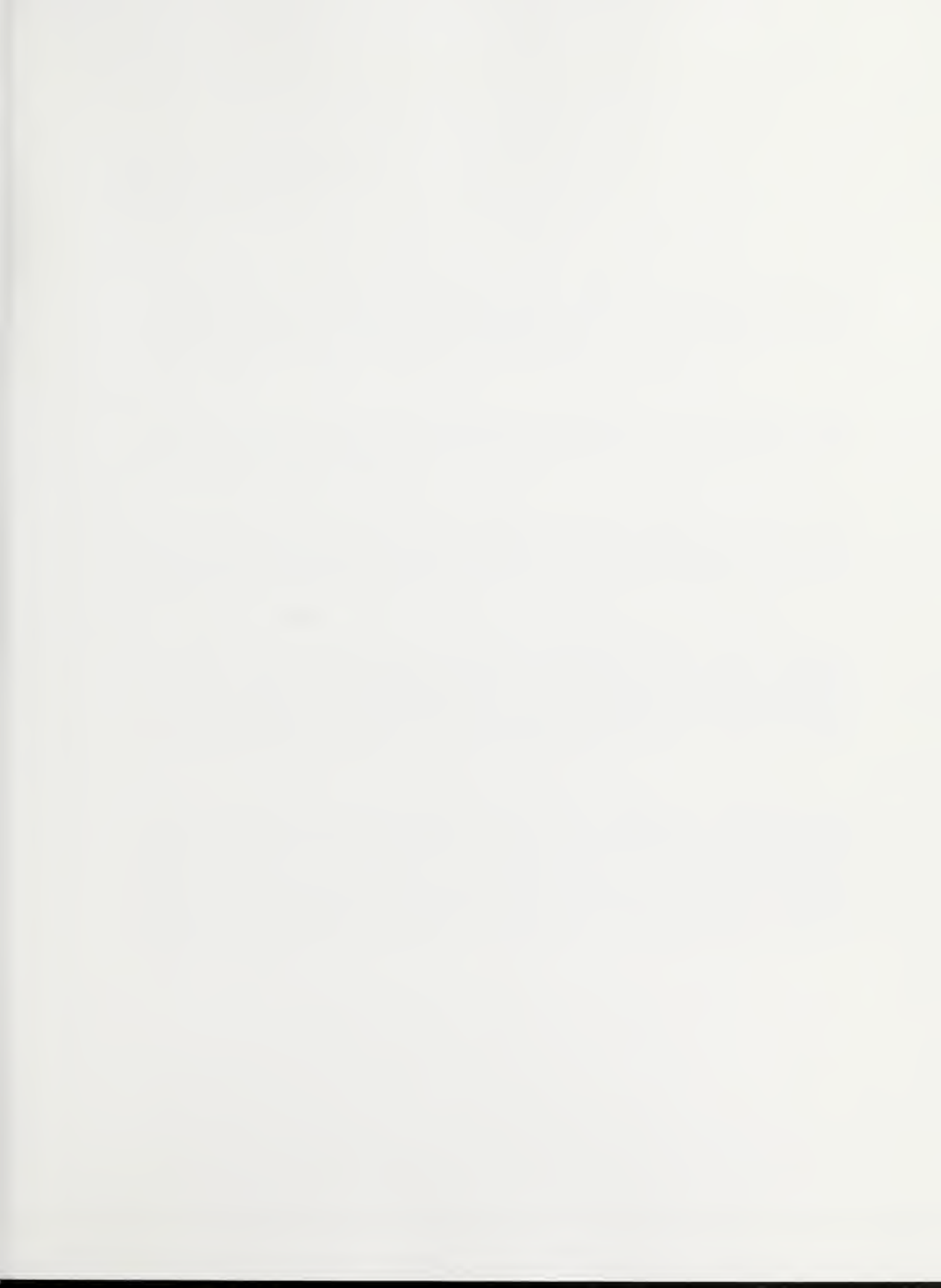
230-36 The notion that the no action alternative is an
 irretrievable commitment of resources is erroneous. Old-growth
 timber stands are composed of uneven aged trees -- varying in age
 from one year old to 800 years old. Based on the description in
 the SEIS these stands are in dynamic equilibrium, where new trees
 are established as old trees die off. There are no opportunity
 costs in the no-action alternative if other timber is made
 available for harvest. The economic benefits for non-timber
 resources may well exceed the opportunity costs when substitute
 timber can not be offered. There are also opportunity costs to
 other resource uses foregone after logging. Because the SEIS
 only evaluates timber costs, there is no meaningful way to
 evaluate economic tradeoffs, including opportunity costs.

230-37 The No-Action Alternative does not have to prohibit the
 placement of fisheries enhancement projects in Analysis Area 2.
 Fisheries enhancement projects are allowed in Wilderness Areas as
 well, under special provisions of the Alaska National Interest
 Lands Conservation Act.

20. AA2, 4-68 and 4-69, Mitigation.

230-29 The management measures are generic and not site-specific.
 This generic approach is similar to the management direction in
 the Area Guide. Under this approach all protection measures are
 assumed to be compatible with one another and logging. This is
 simply not realistic, based on my field experience on the Tongass
 as a forest hydrologist. Tradeoffs are inevitable. That is why
 a discussion of site specific prescriptions for the various
 alternative logging units and roads needs to be evaluated and
 displayed before the public can understand how they may be
 effected by further logging.





FOREST SERVICE RESPONSE

Alaska Pulp Corporation

Letter 231

231-1.

The Forest Service disagrees that APC's contractual rights have been violated by the supplement process. The purpose of the supplement process is to satisfy the Forest Service's contractual obligations to APC by providing the balance of the volume commitment of 697 MBF as discussed in Chapter 1 of the Phase II Draft SEIS documents.

231-2.

In response to your comment that the Forest Service's estimates of timber volume per acre are low compared to your data, the volume per acre estimates used in the Final SEIS have been reviewed and modified as needed.

231-3.

Your comment lists recommendations for changes in the SEIS. We disagree that these changes are needed. However, the decision process of the ROD will consider these recommendations, primarily those requesting deletion of units.

231-4.

Regarding your recommendations for changes in the logging systems proposed by the SEIS alternatives: selected logging systems can be tools for achieving multi-resource management. The units were planned by the Interdisciplinary Team to meet multi-resource objectives and in some cases, this necessitated the use of systems other than highlead. The decision process of the ROD will further consider these recommendations.

231-5.

Each of the individual unit recommendations have been reviewed and changes have been made in the Final SEIS where appropriate. However, your designation of the units listed as "Deferred per Forest Service pending Congressional action" for VCU's 193 and 237 is incorrect. At the time of your comments, the Forest Service had not made a decision to defer these units. The FSEIS further describes their units as being within areas under consideration for Wilderness designation under H.R. 987. The ROD will provide the Forest Service decision in regard to these units.

DRAFT**ALASKA PULP CORPORATION**

4600 SAWMILL CREEK ROAD
 SITKA, AK 99835-9801

August 15, 1989

Mr. Gordon Anderson
 Chatham Area Team Leader
 204 Siginaka Way
 Sitka, AK 99835

Dear Gordon:

Re: Alaska Pulp Corporation Long-Term Sale Contract Draft SEIS

For the purpose of reviewing the Draft SEIS, APC has chosen to concentrate on the preferred alternatives in the four different areas. Some of our comments are by VCU, but many are on specific units.

- 231-1 Through the SEIS process, the USFS has chosen to set aside APC's right to harvest timber covered in previous EIS's and substitute volume outside of the long-term contract selection process.

For over two years APC has been substantially damaged by being prevented from harvesting volume that was appraised for 1986-1990 logging. APC's operations have been curtailed during the best market in the past nine years. We have been unable to access and harvest over 400 MMBF in West Chichagof, East Kuiu, Trap Bay, Upper Game and miscellaneous VCU's 209, 210 and 212 units.

The preferred alternative in the Draft SEIS does not included:

2,375 acres with 69.1 MMBF on West Chichagof; 3,711 acres with 108 MMBF on East Kuiu; and it does not make up the hundreds of acres deleted from various units to date on APC operations on Kuiu and Chichagof Islands.

The preferred alternative in the Draft SEIS does include:

3,448 acres with 80.7 MMBF (F.S. estimate) at 23.4 MBF/Ac. on Area 2; 1,791 acres with 43.8 MMBF (F.S. estimate) at 24.4 MBF/Ac. on Area 3; 1,207 acres with 25.5 MMBF (F.S. estimate) at 21.1 MBF/Ac. on Area 6; and 2,940 acres with 104.4 MMBF (F.S. estimate) at 35.5 MBF/Ac. on Area 12 which were either not included in APC's Section 7(a) selections under the long-term contract or were deleted in the Section 7(a) negotiations.

- 231-2 The volumes per acre displayed in the Draft SEIS on the various units are for the most part erroneously high and APC cannot agree

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231-2 with them. APC's 1988 harvest of over 1,000 acres on Kuiu averaged
Cont. less than 26 MBF/Ac. and the Draft shows an average of over 35
MBF/Ac. for timber that is not as good as the volume APC harvested
1988.

The Forest Service volumes displayed in the other areas show
similar optimism on the Forest Service part, even though they
average less than 24 MBF/Ac.

For the volumes deleted by this Draft, APC had agreed to an average
of 29.1 MBF/Ac. For the volume added in this Draft, the Forest
Service estimates the volume acreages over 27 MBF/Ac. APC does not
agree with this estimate as it is too high. APC's data shows that
the additional volume displayed in the preferred alternative is
considerably below the 29.1 MBF/Ac. agreed to for the 1986-1990
volumes and the 27+ MBF/Ac. the Forest Service figures show. This
discrepancy needs to be addressed by the USFS and a suitable
adjustment made to the USFS figures.

231-3 APC is recommending that the following major changes be made in the
Draft SEIS.

- A) Drop the VCU 419 volume which the Forest Service shows
at 309 acres and 11.5 MMBF (which differs from APC's
estimate of approximately 8.5 MMBF requiring over eight
miles of road).
- B) Add VCU 400 volume in West Security Bay which did not
make the preferred alternative on Kuiu.
- C) Drop the Sitkoh Bay Units and parts of units reflected
in APC's following comments.
- D) Add volume at Florence Bay and Whiterock to make up for
the deletions at Sitkoh Bay.
- E) Delete the units and parts of units reflected in APC's
following comments and replace them with additional
volume at East Point and along the Freshwater Bay road
system.
- F) Delete the VCU 403 (Seagull Creek) volume and replace it
with additional volume along the existing VCU 209, 210
and 212 road systems plus volume off of the existing road
systems deleted from APC's 1986-1990 proposal by the
Forest Service.
- G) Add Muri Creek volume (SW of Corner Bay in VCU 236) which
did not make the preferred alternative.
- H) Make additional volume available at Rowan Bay and
Whiterock to make up for the volume differences between
the Draft SEIS estimates and the actual volume in the
various units.

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- 231-4
- I) Area 2 preferred alternative contains only 40% highlead. This should be modified to 100% highlead.
 - J) Area 3 preferred alternative contains 13% short and intermediate span skyline most of which could and should be modified to 100% highlead.
 - K) Area 6, alternative 4 contains 6% skyline which should be modified to highlead.

As you can tell from APC's comments on the attached sheets, we are not enthused with the volume offered by the Forest Service to substitute for the volume lost at West Chichagof, East Kuiu and various USFS deletions on Kuiu and Chichagof Islands. The substitute volume will not average the 29.1 MBF/A that APC agreed to for the 1986-1990 period without considerable modification along the lines proposed by APC above.

APC will continue to be available to work with the SEIS staff on modifications needed to make the substitute volume acceptable to APC.

Thank you for this opportunity to again put in writing many of the comments APC has been making over the past several years of this SEIS process.

Sincerely,

Kenneth J. Hammons
Chief Logging Engineer

KJH:lh

DRAFT

ALASKA PULP CORPORATION
COMMENTS
ALT. 3, AREA 2 - NEKA & MUD BAY

VCU	UNIT	ACRE	COMMENTS:
193	1	28	Deferred per Forest Service pending Congressional action.
	2	68	"
	3	39	"
	4	54	"
	5	60	"
	6	65	"
	7	20	"
	8	50	"
	9	68	"
	10	28	"
	11	33	"
	12	48	"
	13	98	"
	14	100	"
	15	13	"
	16	25	"
	17	90	"
	18	68	"
	19	100	"
	20	78	"
	21	80	"
	52	100	"
	60	32	"
	61	18	"
		<u>1,363</u>	

VCU	UNIT	ACRE	COMMENTS:
193	55	100	O.K. Unit could be increased in size.
	56	40	Backline may be dropped to eliminate deflection problems.
	57	50	Road location is questionable. Needs some modification of the backline.
	58	30	O.K. Some opportunity to increase the unit size.
	59	67	Poor and defective timber, minimum volume/acre - should be deleted.
		<u>287</u> Ac.	

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VCU	UNIT	ACRE	COMMENTS:
200	45	65	Road needs to cross major V-notch, poor volume.
	46	100	Should be 100% highlead, major deflection problems, delete 50% of unit.
	47	65	Poor timber, move backline down hill to highlead.
	48	80	Poor timber, adjusted backline to eliminate yarding problems.
	49	105	Deflection problems with backline, poor timber.
	50	100	O.K. Backline needs to be brought down to eliminate deflection problem.
	51	65	O.K. Some braided channels in the flats.
		<u>580</u> Ac.	

VCU	UNIT	ACRE	COMMENTS:
201	22	105	Bring backline down to highlead distance. Approximately 1/3 of the unit is not merchantable, some deflection problems.
	23	38	Poor volume (16 M/A) and some backline problems.
	24	26	Poor volume (15 M/A). Needs spur to make it highlead.
	25	95	Pool volume (12 M/A). Should be deleted.
	26	100	Two canyons and major deflection problems are present - needs major changes.
	27	100	Should be modified for 100% highlead
	28	53	Some deflection problems - modify Unit for highlead.
	30	100	Needs additional road and 100 highlead -eliminate volume and road beyond large V-notch.
	53	83	22 M/A - adjust the bottom line along Neka River and the upper boundary.
	54	<u>96</u>	22 M/A - delete SW corner scrub timber and adjust the backline for highlead.
		796 Ac.	

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VCU	UNIT	ACRE	COMMENTS:
202	32	125	Unit backline needs modification - should be highlead.
	33	25	Poor volume (15 M/A) and should be highlead.
	34	35	Poor volume (17 M/A) with blind lead over the top of the hill, should be highlead.
	35	50	Unit extends across creek, no tailholds, should be highlead
	36	40)	Over two miles of road for 2 MMBF, some deflection problems, should be highlead.
	37	30)	
	38	<u>29</u>	Poor timber with possible deflection problems on the upper boundary.
		422 Ac.	

NOTE: Only 8 MMBF's and over six miles of road. This VCU should be eliminated.

DRAFT

ALASKA PULP CORPORATION
COMMENTS
AREA 3, ALT. 3 - FRESHWATER - WHITESTONE

VCU	UNIT	ACRE	COMMENTS:
203	126	125	(Seagull Crk.) 25 M/A with some backling adjustments needed.
	127	144	27 M/A with some boundry adjustments required along creek and backline.
	128	123	27 M/A has some access problems (extra spur needed) and needs backline adjustment.
	129	146	25 M/A -
	130	49	25 M/A -
	131	114	20 M/A -
	132	39	20 M/A - should be deleted due to access problems and poor timber.
		740 Ac.	
			Note: entire VCU has lower than normal volume/acre, log quality and excessive road construction.

VCU	UNIT	ACRE	COMMENTS:
204			(UPPER GAME)
	86	88	Could and should be roaded and logged highlead (17 M/A).
	88	66	Should be roaded for highlead logging.
	90	72	
	91	63	Only one slackline road in this unit. This unit should be modified for highlead.
	92	66	Eliminate top 200' of scrub and make this unit highlead.
	93	41	Eliminate - no merchantable timber.
	99	12	O.K.
	121	37	O.K.
	122	17	O.K.
	123	36	O.K.
	124	132	Eliminate the scrub timber on the bottom and top of the unit. Eliminate the unit, too.
	125	20	O.K.
	133	131	25 M/A - eliminate muskeg, ponds and steep NE portion of the unit.
	134	121	
	135	119	25 M/A - poor volume, excessive road construction.

DRAFT

157	37	O.K.
197	62	O.K.
198	<u>12</u>	O.K.
	1,132	Ac.

VCU	UNIT	ACRE	COMMENTS:
208	3	11)	All three units are in the Huna Totem over-selection.
	4 ²	36)	"
	4 ³	<u>22)</u>	"
		69	Ac.

VCU	UNIT	ACRE	COMMENTS:
209	17	46	Scrub timber.
	21	17)	These two units should be combined and adjusted to include some better volume adjacent to them.
	22	<u>28)</u>	"
		91	Ac.

VCU	UNIT	ACRE	COMMENTS:
210	1	91	O.K.
	12	155	O.K.
	13	<u>50</u>	O.K.
		296	Ac.

VCU	UNIT	ACRE	COMMENTS:
212	3	35	O.K.
	4	75	O.K.
	23	69	O.K.
	33	40	O.K.
	D12	19	O.K.
	D13	91	O.K.
	D14	<u>32</u>	O.K.
		361	Ac.

DRAFT

VCU	UNIT	ACRE	COMMENTS:
217	42	73	Some adjustment to the northern and eastern boundaries may be needed. Scrub timber. 25 M/A
	56	<u>60</u>	
		133 Ac.	

VCU	UNIT	ACRE	COMMENTS:
218	21	49	22 M/A - Blowdown and reproduction in the unit with poor volume.
	22	18	15 M/A - Large holes in the canopy and poor timber quality.
	24	88	27 M/A - Eliminate blowdown on the SE corner and adjust backline to eliminate deflection problems.
	29	59	Less than 12 M/A - delete.
	33	69	Add spur to increase backline distance and acreage.
	34	84	17 M/A - Eliminate musketg and lower portion of the unit (deflection problems).
	35	80	16 M/A - Eliminate the muskeg and southern 1/2 of the unit road, location problems.
	106	<u>100</u>	16 M/A - Delete--no volume in SW 1/2, broken ground and deflection problems in the NE 1/2.
		547 Ac.	

DRAFT

ALASKA PULP CORPORATION
COMMENTS
ANALYSIS AREA 6 - CORNER BAY - ALT. 4

VCU	UNIT	ACRE	COMMENTS:
237	1	27	Deferred action.
	2	20	pending
	3	17	"
	4	23	"
	5	16	"
	6	13	"
		116	Ac.

VCU	UNIT	ACRE	COMMENTS:
238	7	6	O.K. as appraised with minor layout modifications needed to make all of the units highlead and eliminate deflection and tailhold problems.
	8	29	"
	9	29	"
	10	15	"
	11	15	"
	12	3	"
	13	7	"
	14	38	"
	15	11	"
	16	24	"
	17	54	"
	18	39	"
	19	50	"
	20/21	55	"
	22	13	"
	23	23	"
	24	6	"
	25	56	"
	26	35	"
	27	5	"
	28	15	"
		889	Ac.

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VCU	UNIT	ACRE	COMMENTS:
242	94	100	Lower backline to eliminate deflection break and allow highlead system. Delete scrub timber in SE corner.
	95	100	Lower backline in NW corner to eliminate deflection break and allow highlead system. Delete scrub timber (SE corner).
	96	75	Move upper line to delete muskegs and open areas. Timber along road is short, junky and dead top type.
	218	92	Lower upper line to allow highlead Delete open areas along upper line and eliminate scrub timber in SE corner.
<hr/> 367 Ac.			

VCU	UNIT	ACRE	COMMENTS:
243	105	95	Change lines to eliminate open areas and allow highlead system. Low volume area will not justify road construction expense.
	106	80	Change lines to allow highlead Delete scrub in south end.
	108	60	Tough landing construction.
	109	83	Low volume/acre. Delete SW 1/2 because of deep draws. Delete North edge to allow highlead Road crosses V-notch.
	111	115	Delete unit. Road crosses V-notches. Deep draws and low volume/acre in unit. Will not justify construction cost.
	112	85	Change back line to eliminate deflection break and allow highlead.
	113	35	Move line to allow highlead Delete unit east of road.
	114	102	Add short spur to reach South 1/2.
	115	70	Shorten lower line to allow highlead.
	129	45	Shorten backline to eliminate deflection problem and allow highlead.

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130

70

Shorten backline to allow
highlead Eliminate scrub below
road on East side.

840 Ac.

NOTE: As used in this document
M/A stands for MBF/Acre.

DRAFT

APC COMMENTS
ANALYSIS OF AREA 12 - KUIU ISLAND - ALT. 5

<u>VCU</u>	<u>Unit</u>	<u>Acres</u>	<u>Comments</u>
399	7	90	Backline in NE needs to be adjusted and scrub timber in the central SE portion should be deleted.
	8	70	Delete the scrub timber in SW portion of the unit.
	9	70	Adjust east boundary away from muskeg.
	10	39	Adjust south boundary away from muskeg and up to the ridge top.
	11	84	Adjust SE boundary to ridge top and enlarge unit along the road.
	12	<u>85</u>	Okay.
		438 Acres	
400	2	20	Unit should be enlarged.
	4	20	Okay.
	5	24	Okay.
	6	54	Okay.
	7	<u>90</u>	Delete scrub timber, muskegs and beaver ponds.
		208	
402	2	53	Okay.
	3	22	Okay.
	4	56	Okay.
	9	75	Okay.
	10	55	Okay.
	11	91	Okay.
	14	<u>13</u>	Okay.
		365 Acres	

DRAFT

<u>VCU</u>	<u>Unit</u>	<u>Acres</u>	<u>Comments</u>
419	12	32	22 M/A with old blowdown, reproduction and scrub timber included in the layout.
	13	28	23 M/A with old blowdown, scrub timber and deflection problems. Delete.
	14	9	22 M/A with old blowdown, low volume around the edges and deflection problems.
	15	21	20 M/A with lower volume around the edges.
	16	14	28 M/A - Should be enlarged to include timber NE of the road.
	17	21	30 M/A - Should be enlarged to the south and delete low volume on the west.
	18	19	27 M/A - Deflection problems with the backline over the break of the hill.
	19	25	25 M/A - Shorten the yarding distance to eliminate deflection problems and enlarge the upper portion along the road.
	20	12	15 M/A - Delete. Scrub timber.
	21	72	30 M/A - Poor volume on the top and the backline is over the ridge. Needs to be brought back to the top of the ridge.
	22	<u>56</u>	28 M/A - Delete the east 1/3 of the unit. Deflection problems and poor volume.

309 Acres

(Note: This 309 acres requires 8 miles of road and contains less than 10 MMBF. It should all be deleted.)

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<u>VCU</u>	<u>Unit</u>	<u>Acres</u>	<u>Comments</u>
420	2	99	25 M/A with road construction and deflection problems. Muskeg all around the unit.
	3	41	20 M/A with scrub timber along the SE and east sides.
	4	109	Broken ground, deflection and road construction problems. Excessive spur.
	6	72	Broken ground, deflection and road construction problems. Boundary too close to muskeg.
	7	58	Broken ground, deflection problems, scrub timber along the north.
	8	71	Scrub timber along the bottom and short yarding distance. Broken ground.
	10	55	19 M/A with muskeg volume in the upper and lower portions and road construction (side hill) problems. DELETE.
	11	41	17 M/A with muskeg volume in the lower portion and deflection problems in the upper portion - DELETE.
	12	64	23 M/A - Access problems due to <u>deep</u> notch. Deflection problems (broken ground and bluffs) and excessive spurs needed - DELETE.
	13	108	25 M/A - Road construction and logging (tail holds and deflection) problems.
	14	<u>15</u>	24 M/A - Poor volume, reproduction and muskeg holes in the unit.

733 Acres

DRAFT

<u>VCU</u>	<u>Unit</u>	<u>Acres</u>	<u>Comments</u>
421	6	116	Delete muskeg area in center of unit (2 acres).
	7	87	Adjust backline; patches of scrub along road.
	9	21	Boundary too close to muskeg - adjust.
	11	92	Some deflection problems. Adjust the backline.
	12	85	Eliminate scrubby timber in SW corner.
	13	30	Okay.
	14	71	Okay.
	15	15	Okay.
	16	11	Okay.
	17	25	Poor volume per acre and some road construction problems (side hill rock).
	18	47	Okay.
	19	104	Okay.
	31	111	Some access and deflection problems. Poor timber.
	36	<u>97</u>	Okay.
		912 Acres	



FOREST SERVICE RESPONSE

Office of the Governor

State of Alaska

Letter 233

233-1

The Forest Service disagrees that the Draft SEIS is not site specific. Unit Cards, maps and other information provided in the DSEIS and available in the Planning Record contain more than adequate information to make a determination of consistency with the Coastal Zone Management Act. For example, the Unit Card for Unit 421-6 in Appendix C-2 of the Analysis Area 12 DSEIS shows specific stream protection measures. All of the Unit Cards are now displayed in the FSEIS. Please also refer to Theme Response 4 concerning site specificity issues.

233-2

The Forest Service disagrees that the DSEIS is a programmatic plan. The DSEISs are project level EISs and there is sufficient site-specific information contained in the document to evaluate the impacts of the proposed project level actions. Please also refer to Theme Response 4 concerning site specificity.

It appears that the State is confused about the NEPA planning process. Minor adjustments made to harvest units do not necessarily modify the proposed action or require further NEPA review. These changes are made primarily to reduce environmental impacts, and are part of the mitigation and monitoring process for implementing the proposed alternative. We refer you to the Record of Decision (ROD), which explains the NEPA procedures required for such changes.

233-3

The Forest Service does work closely with the State of Alaska during project planning stages. The Forest Service would like to see the State of Alaska become more involved in cause and effect studies and in the evaluation of project impacts. Rather than wait until the preparation of the ROD, which is the final decision-making step in this process, the involvement of ADF&G in the early stages of planning would be appropriate. The agency should be involved in the process well before decisions need to be made. Please also refer to Theme Responses 1 and 6 concerning public involvement and the planning process for a clarification of the appropriate State role.

233-4

In response to public concern about the site specificity of the data displayed in the DSEIS, all of the harvest Unit Cards for each Analysis Area will now be displayed in the FSEIS. The Forest Service expects that the inclusion of all of these Unit Cards will facilitate the State's CZMA consistency determination. There is no "third level" of planning with respect to the actions proposed in these documents. Please refer to Theme Response 6.

RESPONSE: Letter 233

233-5

Sufficient information was available in the DSEISs to determine what in-stream activities are proposed under the alternatives. The maps displayed in Chapter 2 of each document show all road crossings and harvest units next to Class I and II streams. In addition, Chapter 4 contained harvest unit-specific data on proposed timber harvest in AHMUs for each alternative (for example, Table 4-22 in Analysis Area 3) and VCU-specific data on the miles of proposed roads in AHMU by alternative (for example, Table 4-23 in Analysis Area 3). In addition, the Unit Cards show all road crossings and harvest unit layouts adjacent to Class I, II, and III streams. See also Theme Response 4 concerning site specificity.

233-6

The Forest Service disagrees that it was not possible to determine the proposed harvest levels in specific Aquatic Habitat Management Units. The Unit Cards which were available in the planning record and which are now presented in the FSEIS do show what harvest activities are planned in each AHMU and where stream buffers will need to be employed to protect fish habitat in streams adjacent to proposed harvest units. See also our responses to Comments 233-1 and 233-5. Please refer to Theme Response 4 concerning the scale of the maps provided in the DSEIS.

233-7

The lack of buffers adjacent to Class I streams shown in the DSEIS in Analysis Area 12 is the result of a mapping error which has been corrected in the FSEIS.

233-8

The Forest Service continues to support the AHMU guidelines for protecting aquatic habitats. AHMU guidelines provide for more site-specific protection to aquatic habitats and allow specialists to make determinations on a case-by-case basis. We find this to be more effective than an inflexible rule which may not always provide adequate protection. Please also refer to Theme Response 4 for a clarification of the Forest Service's position on the use of AHMUs.

233-9

The Forest Service disagrees that the SEIS analysis discounts the importance of Class III streams. Under the AHMU guidelines, Class III streams do not require the same level of protection as Class I or Class II streams. Therefore, Class III streams are treated differently in the discussion and tables in the DSEIS. However, AHMU guidelines do provide for the protection of the values associated with Class III streams, while the alternative policies suggested by the State do not. Please also refer to Theme Response 4 for a clarification of the differences between the AHMU guidelines and those proposed by NMFS.

RESPONSE: Letter 233

233-10

A "threshold of concern" of 25 percent has been established to protect watersheds from potential impacts of timber harvest. This threshold is based on limited research done in Southeast Alaska to date (studies are cited in the DSEISs, Chapter 4, Watersheds sections). Studies have indicated that up to 25 percent of the land area of a watershed (not just forested land) may be harvested in one entry (not cumulative entries over time) before impacts are seen in the water quality of that watershed. These studies also indicate that 10 to 15 years after the initial entry the area will have recovered enough hydrologically that a second entry is possible. There are no watersheds that approach this threshold of concern in Analysis Areas 2, 3, or 6.

233-11

High soil hazard areas are shown on the Unit Cards along with proposed road layouts. Refer to Chapter 4, Soils, for a discussion of potential impacts (Analysis Area 2, pg 4-2; Analysis Area 6, page 4-2; Analysis Area 3, page 4-2; Analysis Area 12, page 4-2). Harvest units are not located on areas with extreme hazard soils. Road layouts are also planned to avoid high hazard soils. It should also be noted that an extreme soil hazard potential does not necessarily exist when a road crosses a V-notch. Unit Cards detail mitigation measures to be used to avoid soil hazards.

233-12

The "new information" referred to in your comment is not referenced, so we have no way to respond to your statement that it was not included. Considerable information on the importance of large woody debris and the other benefits of streamside buffers has been incorporated into the analysis (refer to Chapter 7, Literature Cited). If the State feels that there is information that has not been included, it is possible that it was considered and not found to be relevant. Without citations we cannot make such a determination.

Please refer to Theme Response 4 for a clarification of the Forest Service's policy on stream buffers and mitigation measures. Please also note that the Unit Cards contain detailed site-specific recommendations for stream buffers and other mitigation measures where necessary.

233-13

Please refer to Theme Response 6 for a clarification of the "phasing" of this planning process. The SEIS is a project level decision-making tool and the State should be aware that final decisions are made with the ROD. Please also note that Unit Cards show actual locations of proposed harvest units and roads and include site-specific prescriptions for stream buffers and mitigation measures.

233-14

Precommercial thinning of second-growth stands is not intended to completely mitigate for harvest of old-growth areas. The primary method of mitigating for cumulative impacts to old-growth conditions is the use of old-growth prescriptions in which certain areas or percentages of the forest are left as old growth. The Forest Service agrees that the effectiveness of precommercial thinning in mitigating some of the impacts of timber harvest on deer winter range is experimental. However, precommercial thinning is practiced throughout the forest for other purposes. It is hoped that further research will show that it also has a beneficial effect on the capability of second-growth stands to support deer during winter months.

233-15

Timber harvest proposed in the DSEIS is not equivalent to a decision to harvest in those areas. A range of alternatives are presented in the DSEIS and evaluated through the Draft and Final SEISs. Not all of the alternatives presented propose harvest in the areas of concern in H.R. 987 and S.B. 346. A decision on which, if any, areas will be harvested, is not made until the ROD is issued. Please refer to Theme Response 2 for a clarification of the Forest Service's policy regarding congressional action on H.R. 987 and S.B. 346.

233-16

The State is apparently confusing the description of the long-term and cumulative impacts which are discussed in the second half of Chapter 4 (Analysis Area 12 pages 4-45 to 67; Analysis Area 2 pages 4-41 to 66; Analysis Area 6 pages 4-49 to 74; Analysis Area 3 pages 4-66 to 98) with the discussion of the impacts of the proposed action in the first half of Chapter 4 (Analysis Area 12 pages 4-1 to 45; Analysis Area 2 pages 4-1 to 41; Analysis Area 6 pages 4-1 to 49; Analysis Area 3 pages 4-1 to 66). The impacts of the proposed actions are relatively minor, as discussed in the document.

You subsequently comment that timber harvests "over the past 30 years have significantly reduced the capability of forested habitat to support the wildlife species that depend on the old-growth component of the forest." First, timber has only been harvested in these areas for the past 8 to 10 years, rather than 30 years and, therefore, cumulative impacts to date are probably not as great as the State fears they are. Second, the species you mention (brown bear, deer, and marten) have not been shown to be dependent on old-growth forest habitat, although they are certainly associated with it.

Finally, we question the meaning of the phrase "significantly reduced." The State has not provided the Forest Service with management objectives for any species in any given minor harvest unit, which makes evaluation of what is "significant" in terms of the State's goals quite difficult.

RESPONSE: Letter 233

233-17

In response to public comments which indicate a confusion about the distinction between impacts from the proposed action and the reasonably foreseeable potential impacts, the FSEIS has been modified. The long-term, cumulative impacts of the proposed actions are now separated from the long-term impacts that might result from the combination of the management direction envisioned in TLMP and a continuation of current State of Alaska and private land management directions.

233-18

The State is incorrect in its assertion that old-growth prescription stands identified in the 1986-90 FEIS were to be managed in old-growth conditions until the end of the planning period. These stands were to be managed in old-growth conditions until either the end of the planning period or until a new NEPA analysis was made (1986-90 FEIS page 4-13). This document, which ends with the issuance of a ROD, constitutes a new NEPA analysis which allows for changes in the old-growth prescriptions identified in the 1986-90 FEIS.

233-19

The harvest units and alternatives proposed in the SEISs are not the same as those in the preferred alternative from the 1986-90 NEPA process. The old-growth habitat prescriptions do not constitute the sum total of the old-growth conditions present in a VCU; therefore, changes in the old-growth prescription may not be equivalent to changes in the amount of old-growth habitat conditions available to associated wildlife species. However, if all of the proposed timber harvest in any of the action alternatives in the DSEISs were implemented, 99 percent (Analysis Area 12) to 89 percent (Analysis Area 6) of the existing prescribed old-growth habitat conditions would remain. The State is also referred to Theme Response 1 concerning the involvement of ADF&G in the process of identifying units of land for retention in old-growth prescriptions.

233-20

Your comment assumes that the number of acres proposed for harvest in Volume Classes 6 and 7 expressed as a percentage of the total acres proposed for harvest is a crucial issue. However, the more relevant issue is the number of acres proposed for harvest in the high Volume Classes expressed as a percentage of the total number of acres in those Volume Classes that are available in the study area. Old-growth associated species are more affected by total available habitat and impacts on the total available than by the percentage of proposed harvest that is in high Volume Classes. The proposed alternatives only propose harvesting 2.8 percent (Alternative 2) to 4.2 percent (Alternative 3) of the total available acres in Volume Classes 6 and 7. See also our response to 233-19 concerning the amount of old-growth prescriptions that would remain if any of the action alternatives proposed were fully implemented.

RESPONSE: Letter 233

The State comments that "Kuiu Analysis Area is scheduled to have 70 percent of the timber harvested from high volume stands" while the 1986-90 FEIS proposed harvesting only 22 percent of the timber from high volume stands. The State apparently does not understand that these two figures are not comparable. The percentage quoted from the 1986-90 FEIS is a value for the entire timber Contract Area. The percentage quoted for Analysis Area 12 is a percentage of the timber to be harvested only from Analysis Area 12, which is a much smaller area than the entire Contract Area. Please note (as shown in Chapter 2, pages 40 and 41) that under Alternative 5, the majority of high-volume timber harvested would be taken from VCUs 420 and 421. Please note also that the amount of high-volume timber is proportionately high in these two VCUs (see Chapter 3, page 8, Table 3-2). It is not inconceivable that over the entire Contract Area some areas would be harvested at much higher percentages and others at much lower percentages while still achieving a Contract Area-wide average of 22 percent of the total volume harvested from high volume stands.

233-21

The Forest Service disagrees that it is necessary to establish an interagency task force to review management proposals in old-growth retention areas. These supplements are to respond specifically to issues raised in the *Tenakee Springs v. Courtright* and *Hanlon v. Barton* cases. Old-growth retention issues were not a part of those court decisions. The total area of old-growth prescriptions in the four Analysis Areas under review exceeded TLMP retention factor estimates. Minor adjustments were made in designing the alternatives for the DSEISs. These adjustments were reviewed with ADF&G personnel and do not warrant the same in-depth review as was done for the KPC EIS process, since these SEISs are not proposing to establish new retention areas.

233-22

We do not understand your comment that the habitat models are not the best available, since the models used were developed in consultation with the ADF&G. Please also refer to Theme Response 9 concerning the habitat models used in the DSEISs.

233-23

Your comment states that the Forest Service's sampling effort to determine deer winter range was inadequate. Elevation is a critical factor in defining deer winter range. The Forest Service sample harvest units to determine the proportions that are above and below 800 feet elevation. An elevation below 800 feet is described in the models as being usable for deer winter range while elevations above that are not. Intensive sampling is not necessary in order to make a reasoned choice. Please also refer to Theme Response 9 concerning these issues about the habitat capability models and data used.

RESPONSE: Letter 233

233-24

Please refer to Theme Response 9 concerning the habitat capability models and data used.

233-25

The Forest Service agrees with the State of Alaska that the viability of the brown bear population on northeast Chichagof Island (Analysis Area 3) is threatened, and this issue is documented in the DSEIS. However, the Forest Service disagrees with the State on the reasons for the observed declines. According to the model, which was developed in conjunction with ADF&G biologists, the limiting factor on current brown bear populations is encounters with humans. As the number of bear/human encounters increases, the number of bears killed increases.

There are a number of factors that contribute to increases in bear/human encounters, including private land management policies, continued State Marine Transportation System access to the area for hunters from other areas, and State sport hunting regulations concerning brown bears. For example, sport and subsistence hunting regulations allow a legal kill rate that, according to the models used, exceed the mortality rate that a long-term viable population can sustain. The State also allows additional killing of brown bears "in defense of life and property". The Forest Service believes that legal hunting pressures combined with illegal hunting have resulted in the observed declines in the brown bear populations on northeast Chichagof Island.

The State also suggests that a closed population of 300 bears is required to maintain a viable population. However, the model projections presented in Chapter 3 of the Analysis Area 3 DSEIS indicate that northeast Chichagof Island would have only supported 270 bears prior to any timber harvest in these areas. The Forest Service acknowledges the recent reduction in the allowable sport harvest in the DSEIS; however, sport kills of brown bears continue to be authorized by the State despite increasing evidence that the current population is below levels required to maintain a viable hunting population.

Road building proposed in the DSEIS could increase access which then might lead to an increase in bear/human encounters. However, the Forest Service has presented a variety of road management and closure options designed to mitigate these potential impacts. The models indicate that seasonal or permanent closure of lower standard secondary roads could have the beneficial effect of reducing bear/human encounters. These model projections and mitigation measures are presented in Chapter 4 of the DSEIS.

The State is also referred to Theme Response 3 for a more complete response to the issue of brown bear population viability.

233-26

As explained in Theme Response 6, change does indeed take place in the implementation of a selected alternative. The DSEIS quantified the changes monitored to date in the implementation of the 1981-86 and 1986-90 EISs. For example, the discussion in Analysis Area 12, Chapter 3, page 3-13, indicates that the number of acres harvested exceeded the number proposed between 1981 and 1988 by 8.4 percent. The document further explains that this represents only 464 acres over the entire Analysis Area and that most of this acreage, 452 acres (8.1 percent), was blow-down salvage during this period. We refer you to our response to Comment 233-2. Again, minor changes such as adjustments in the location of a harvest unit or a road may be necessary in order for the action to be consistent with Regional Guidelines and environmental concerns. Changes which do not constitute a substantial departure from the approved plan may not necessitate documentation in an EA or EIS. Adjustments are monitored on the back of the Unit Cards used in the EIS process. These adjustments do not constitute a "third level" of planning but are a continuation of the implementation process begun in the ROD.

233-27

Recreational impacts are discussed in the Recreational Resources section of Chapter 4 of each document (beginning on page 4-31 for Analysis Area 12; page 4-48 for Analysis Area 3; page 4-29 for Analysis Area 2; and page 4-32 for Analysis Area 6). The discussion of recreation impacts in these sections covers changes in recreational opportunities available to users which include recreational hunters and fishermen. As pointed out in those sections, the changes in recreational opportunities are primarily the result of changes in access. Aesthetic changes are discussed in the Visual Resources sections of Chapter 4 of each document (beginning on page 4-34 for Analysis Area 12; page 4-53 for Analysis Area 3; page 4-31 for Analysis Area 2; and page 4-36 for Analysis Area 6). Sport hunting patterns are dependent on a variety of factors, many of which are not under the control of the Forest Service. Influences such as State Marine Transportation System access, hunters' perceptions of potential competition for limited resources, and sport hunting regulations which affect seasons and bag limits all affect sport hunting patterns. Changes under the control of the Forest Service have been documented in the DSEIS. It is the opinion of the Forest Service that the State of Alaska sport hunting regulations have not kept up with the changes in the hunting patterns, demands, or the capability of the resources to support historic levels of sport hunting.

233-28

The ROD fully addresses the issue of monitoring. There, we state that all activities authorized under the ROD will be monitored to assure that they remain consistent with the direction provided by the ROD, and that proposed changes be fully disclosed. Monitoring also enables us to evaluate the effectiveness of actions. For a full discussion of the monitoring plan, please see the ROD sections on Implementation Monitoring, Effectiveness Monitoring, and Validation Monitoring.

RESPONSE: Letter 233

233-29

The Forest Services wishes to clarify that there are no new log transfer facilities proposed. Existing log transfer facilities are discussed in Chapters 3 and 4 under the Marine Environment sections. The two newest log transfer facilities, which are in False Bay and Seal Creek in Analysis Area 3, were assumed to have been constructed in the spring and summer of 1989. Environmental assessments were conducted for these log transfer facilities and included in the DSEIS as Appendices B-1 and B-2 for the information of the reader. All log transfer facilities proposed for use have current State permits and do not require any further review by State agencies before use occurs.

The Forest Service would also like to point out that your concerns about Port Camden are unfounded, as there is no log transfer facility proposed for Port Camden or its associated estuary under any of the alternatives.

233-30

The Forest Service disagrees with your comment that the subsistence analysis is inadequate and based on inadequate data. Subsistence uses were covered thoroughly in the DSEIS; additional data was collected at the Subsistence Hearings and are further evaluated in the FSEIS. Please refer to Theme Response 5 for a complete discussion of the issue of subsistence data adequacy, and for a clarification of the ANILCA Section 810 requirements.

233-31

Please refer to Theme Response 5 concerning subsistence data adequacy.

233-32

Please refer to Theme Response 5 for a clarification of the use of the TRUCS data in these SEISs.

233-33

The Forest Service disagrees that the documents are not site specific. Please refer to Theme Response 4 concerning site specificity.

233-34

We refer you again to Theme Response 5 for an explanation of the ANILCA Section 810 evaluation and determination process. ANILCA 810 determinations are not required in the Draft SEIS; determinations are made in the Final SEIS and ROD, after all of the relevant data, including the results of the subsistence hearings, have been collected and evaluated.

RESPONSE: Letter 233

233-35

Please refer to Theme Responses 1 and 5 for a clarification of the subsistence hearing process.

233-36

Please refer to Theme Response 5 for a clarification of ANILCA 810 requirements. ANILCA 810(a)(3) determinations are not made in the Draft SEIS prior to subsistence hearings.

233-37

The Executive Summary only provides an overview of the conclusions presented in Chapter 2 of each document. The Executive Summary was constructed by selectively printing appropriate sections of Chapter 2 from the complete documents for each analysis area. Therefore, there is nothing in the Executive Summary that is not already stated in the main texts.

Information presented in Chapter 2, and thus the Executive Summary, is a summary of the conclusions reached on the basis of analysis of data presented in Chapter 4 of each document. The summary tables in the Executive Summary contain extremely concise statements that should not be taken out of the context of the whole document, including Chapter 4, where the detailed data, analysis, and conclusions are presented.

The finding that there may be a restriction of subsistence uses is based on the long-term cumulative effect of all management activities in the area, including private land management, State of Alaska regulations and actions, and Federal actions. It is not based only on cumulative impacts of the proposed action. Because of public confusion about this distinction, Chapter 4 of FSEIS has been modified to improve the readability of the documents. However, this does not affect the statements made in the summary table in Chapter 2 when taken in context with Chapter 4.

Please also refer to Theme Response 5 concerning the adequacy of the subsistence data used. In addition, further information collected at the subsistence hearings is now presented in the FSEIS.

233-38

See our response to 233-37 concerning conclusions presented in the Executive Summary. Please also refer to Theme Response 4 concerning site specificity of the analyses.

233-39

The Forest Service disagrees with the State's allegation that the No Action Alternative is not a true No Action Alternative. Please refer to Theme Response 6 for a clarification of the definitions of the No Action and the No Further Harvest Alternatives used in these DSEISs.

RESPONSE: Letter 233

233-40

The only carryover volume that is assumed to be in place is in non-deferred VCUs which were evaluated in earlier NEPA reviews and approved by the court in *Tenakee Springs v. Courtright* for continued harvest. VCUs which were deferred in *Tenakee Springs v. Courtright* and in *Hanlon v. Barton*, pending further NEPA review in these SEISs, do not include any carryover volume. Harvest is proposed in some subsistence areas. A map of important subsistence areas is included with the FEIS, and may be cross-referenced to the harvest areas displayed in the Alternative 2 maps.

233-41

Maps are provided showing the ADF&G minor harvest units (3523, 3524, 3525, 3526, and 3527) which could be affected. They are found in each document as follows: Analysis Area 12 page 3-27, Figure 3-5; Analysis Area 2 page 3-28, Figure 3-2; Analysis Area 3 page 3-33, Figure 3-2; and Analysis Area 6 page 3-25, Figure 3-2.

233-42

The meaning of this comment is somewhat unclear. However, please see Theme Response 5 concerning the use of the TRUCS data and the subsistence use area maps. In addition, subsistence use area maps have been included in Chapter 3 of the FSEIS based on comments from the public and at the Subsistence Use Hearings.

233-43

Please refer to Theme Response 5 concerning the use of TRUCS data. The compilation of subsistence data is an ongoing process, and errors will be corrected as they are identified.

233-44

In our Draft SEIS Chapter 4 discussion of subsistence we mention the potential for the addition of new logging communities, but neither the addition of new logging camps nor the expansion of existing ones is proposed or projected. Were these actions to be proposed, their potential impact would be evaluated at that time. Additional logging camps would require special use permits which could be issued only after compliance with the NEPA review process.

Please bear in mind that State of Alaska regulations prohibit discrimination among residents of Alaska. Residents of logging camps in subsistence areas are legitimate subsistence users with the same rights, under the State regulations, as residents of established communities. Persons who do not qualify as residents of a subsistence use area still have the right to use those resources under the State of Alaska sport hunting and fishing regulations.

RESPONSE: Letter 233

233-45

We are not sure what you mean by the "entire issue." If you are referring to long-term and cumulative impacts of future logging camps, please see our response to 233-44. Your comment indicates confusion about the NEPA planning process and the difference between the long-term cumulative impacts of the proposed actions and reasonably foreseeable cumulative impacts. Please refer to Theme Responses 5 and 6 for clarification of these issues.

233-46

In Chapter 4, page 63 of the Draft SEIS, we state that the proposed action would not affect traditional access by boat for subsistence uses. We do, however, acknowledge the potential affects of increased road access, and state that mitigation measures will help to offset these impacts.

233-47

The existing TLMP includes calculations for the Allowable Sale Quantity (ASQ). As required by the National Forest Management Act, future revisions of the TLMP will also calculate the ASQ or Harvesting Schedule. Concerns pertaining to the TLMP revision should be addressed to the TLMP revision team.

233-48

The Forest Service disagrees with your comment that the subsistence data is inadequate. Sufficient site-specific information was provided in the DSEISs concerning the proposed actions and further information gathered at the subsistence hearings and data that was used but not displayed in the DSEISs is now presented in the FSEISs. The FSEISs include Unit Cards which show the proposed layouts of all the harvest units and their relationships to resources issues such as roads, old-growth prescriptions, Class I and II streams, and AMHUs. Subsistence use area maps and the SEIS maps showing alternative harvest units, topography, roads, streams, and old-growth prescriptions provide additional site-specific detail needed for land-use decisions. The State should also be aware that land use decisions are not made at the Draft SEIS stage, but rather, that the Subsistence hearing record and the FSEIS analysis are used to support land-use decisions made in the ROD.

233-49

Your comment concludes that the long-term effects of the proposed actions will restrict subsistence uses, but you do not supply any data to support this conclusion. As the Forest Service understands the *Hanlon v. Barton* decision, a finding of significant restriction of subsistence uses must include long-term impacts, not only from the proposed actions, but also the long-term impacts from the actions of all agencies. For us to understand your conclusion that the proposed actions would restrict subsistence uses, the State would need to supply its interpretation of the role of such things as private timber harvesting activities, sport and subsistence hunting regulations, and ferry access from population centers to remote areas of Southeast Alaska, in affecting subsistence uses.

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August 15, 1989

Mr. Michael Barton
Regional Forester
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U. S. Department of Agriculture
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RECEIVED

AUG 15 1989

REGIONAL FORESTER
FOREST SERVICE
JUNEAU, ALASKA

Dear Mr. Barton:

SUBJECT: ALASKA PULP CORPORATION LONG-TERM TIMBER SALE CONTRACT;
DRAFT SUPPLEMENT TO THE ENVIRONMENTAL IMPACT STATEMENTS
FOR THE 1981-86 AND 1986-90 OPERATING PERIODS

The State of Alaska has completed its review of the draft supplement to the environmental impact statements (Phases I and II) for the 1981-86 and 1986-90 operating periods for Alaska Pulp Corporation's long-term timber sale contract. The briefing which Mr. Jim Pierce and his staff provided to state reviewers on July 20 was helpful and appreciated. Comments regarding the consistency of the proposed federal action with applicable standards of the Alaska Coastal Management Program (ACMP) are provided pursuant to the Coastal Zone Management Act (CZMA - 16 U.S.C. 1451) and associated regulations (15 CFR 930). Issues not related to federal consistency are discussed beginning on page 6 of this letter.

ACTIONS ON FEDERAL LAND WHICH DIRECTLY AFFECT COASTAL ZONE

The state recognizes that the CZMA excludes federal land from the coastal zone. However, proposed activities on federal land which would directly affect the coastal zone are required by the CZMA to be "consistent to the maximum extent practicable" with approved state coastal management programs. Our intent in providing consistency comments at the draft supplement stage is to assist you in the preparation of a federal consistency determination accompanying the Final Supplemental Environmental Impact Statement (FSEIS) and Record Of Decision (ROD). When the FSEIS and ROD are released to the public, the state will render a conclusive finding per 15 CFR 930.41.

The state's review of the draft supplement considered the proposal's consistency with applicable standards of the ACMP, including timber harvesting and processing (6 AAC 80.100), habitats (6 AAC 80.130), air, land and water quality (6 AAC 80.140), and recreation (6 AAC 80.060).

- 233-1 Although the level of detail displayed in the draft supplement may satisfy NEPA requirements for disclosure of environmental impacts associated with the proposed action, the lack of site specific information and unit design for each of the harvest areas which could directly affect the coastal zone makes it difficult to agree, at this juncture, that the proposal would be consistent to the maximum extent practicable with applicable ACMP standards. We recognize that the Forest Service, after issuing a
- 233-2 FSEIS and ROD for the project, will conduct more detailed planning at the field level and make numerous decisions about the final location of unit boundaries, roads and other choices which cannot reasonably be determined at the present time. Currently,
- 233-3 the State of Alaska has no opportunity to participate in subsequent decisionmaking phases of the project, other than those aspects which require additional federal permits such as log transfer facilities. For activities which may require additional state agreement, such as planned activities in fish streams, the Forest Service provides only informal review opportunities for the Department of Fish and Game (DFG) on a selected basis.

CZMA regulations at 15 CFR 930.37(c) address the responsibility of a federal agency to provide opportunity for state review of federal actions at each phase of project decisionmaking, as follows:

In cases where the Federal agency has sufficient information to determine the consistency of a proposed development project from planning to completion, only one consistency determination will be required. However, in cases where major Federal decisions related to a proposed development project will be made in phases based upon developing information, with each subsequent phase subject to Federal agency discretion to implement alternative decisions based upon such information (e.g., planning, siting, and design decisions), a consistency determination will be required for each major decision. In cases of phased decisionmaking, Federal agencies shall ensure that the development project continues to be consistent to the maximum extent practicable with the State's management program.

Absent a scheduled opportunity for formal state review of major management decisions which are made subsequent to the ROD and which could directly affect the coastal zone, the state must identify at this phase (where possible) alternative measures which would make the project consistent to the maximum extent

- 233-4 practicable. If the Forest Service provides additional consistency determinations for the state's review as required by regulation, measures in lieu of those described in this letter can be identified which would be more appropriate to site-specific conditions and needs. (As noted in my letter to you of August 2, 1989, this subject should be addressed in conjunction with revision of the existing Memorandum of Understanding between the Forest Service and the Division of Governmental Coordination.)

Actions proposed in this draft assessment will directly affect coastal zone resources, particularly anadromous fish and water. Protection of important fisheries resources and water quality are among a number of the state's major concerns. The State of Alaska has previously addressed its broader interest in balanced multiple-use management of the Tongass National Forest (including the APC sale area which is the subject of this draft supplement) in Congressional testimony and Congressionally-mandated reports, TLMP revision, other environmental documents, and meetings. Accordingly, the following discussion is limited to specific concerns about the proposed action which are not adequately addressed in the draft supplement, and should not be construed as the state's sole interest in management of the Tongass Forest.

CONSISTENCY OF THE PROPOSED ACTION WITH ACMP STANDARDS

In-Stream Activities

- 233-1 Placement of structures or other activities in anadromous fish
233-5 streams can directly affect coastal fishery resources. The level of detail provided in the draft supplement is insufficient to determine at this time if the proposed in-stream activities are consistent with applicable ACMP standards (6 AAC 80.130 (a)(7), (b), and (c)(7)). In the event that certain proposed in-stream activities will not conform to these standards, they may be allowed if there is a significant public need, no feasible prudent alternative exists to meet the public need, and all feasible and prudent steps will be taken to maximize conformance with the applicable standards (6 AAC 80.130(d)). If the Forest Service provides additional opportunity for review of site-specific plans for in-stream activities as required by federal regulation, the state will work with the Forest Service to avoid or if necessary, in the alternative, to minimize adverse impacts on the state's coastal fishery resources.

Streamside Riparian Areas

- 233-6 The proposal would authorize timber harvesting, road construction, and associated activities in streamside riparian areas. Such activities are expected to directly affect fish-bearing streams in varying degrees by influencing large

- woody debris sources, stream stability, thermal cover, water quality, and nutrient flow. Due to the small scale of the maps in the draft supplement, it is not possible to determine what level of harvest is planned in specific Aquatic Habitat Management Units, and where streamside buffers will actually be provided. The draft supplement proposes harvest units on Kuiu Island adjacent to Class I streams, apparently with no buffers. State biologists do not believe that this practice will maintain or enhance fish habitat in the affected streams. As an alternative measure at this juncture the Forest Service could adopt the standards displayed in Option C of the FEIS for the KPC 89-94 Operating Period if found to be practicable. In lieu of the Option C standards, the Forest Service could provide more detailed information for state review in later phases of decisionmaking. Appropriate protective measures can be tailored for site-specific situations to maximize ACMP consistency. Also noted is the apparent discounting of the importance of Class III watercourses in affecting water quality. Adoption of the alternative measures proposed above would address the state's concern.
- 233-7
- 233-8
- 233-9

Drainage Threshold Exceeded

- 233-10 The Security Creek drainage on Kuiu Island will be 51.2 percent harvested if the preferred alternative is adopted. Currently 47.2 percent of the drainage has been harvested, with an additional 4 percent to be harvested if the preferred alternative is adopted. Although the evidence is not conclusive (as presented in the Kuiu Island document, pg. 4-25), drainages with more than 25 percent of their areas harvested can experience elevated peak stream discharges and adverse temperature effects. Security Creek, which has peak escapements in excess of 52,000 pink, 1000 chum, and 222 coho salmon, is probably experiencing some adverse fishery impacts in some years. If watersheds exist in other management areas which also have a high proportion of cut-over land, they have not been identified in the draft supplement. The Forest Service should identify any other watersheds which would exceed the 25 percent threshold with adoption of the preferred alternative. Any additional timber harvest in such drainages which would significantly exceed the threshold should be deferred pending monitoring of possible adverse fisheries impacts. (6 AAC 80.130 (a)(7), (b), (c)(7))

High Soil Hazard

- 233-11 The proposed action would, according to the draft supplement, avoid areas of high hazard soil in all management areas. However, in reviewing the small scale maps provided, it appears that units are located on steep slopes and that proposed roads may cross hazardous soil areas. It is difficult to conceive of roads and units not crossing V-notches in southeast Alaska. Based on the information provided in the draft supplement, the state

cannot agree that the proposal would be consistent to the maximum extent practicable. The FSEIS should identify areas with naturally unstable soils, and areas with high and extremely high soil mass movement indices where they are located in proposed cutting units or in areas through which roads will be constructed. If this level of detail cannot be attained at the FSEIS stage, then the state should be provided the opportunity to review field layout plans in relation to site-specific soil hazards.

Mitigation Measures

Mitigation measures are intended to reduce the impact of management activities on fish, wildlife, water and other affected resources. All feasible and prudent mitigation measures should be taken to maximize conformance with applicable ACMP habitat standards (6 AAC 80.130(b) and (c)) if proposed management actions will not maintain or enhance fish or wildlife habitat.

233-12

Although substantial new information has become available regarding the importance of large woody debris and other benefits of streamside buffers, the draft supplement provides no new mitigation measures beyond those identified in the original 1986-90 FEIS. To ensure maximum conformance with ACMP standards (6 AAC 80.130(b) and (c)), mitigation measures to protect fish habitat and water quality should be identified in the FSEIS which utilize the new information.

233-13

Examples of mitigation measures are provided in the draft supplement, but they are vague and suggest only very general guidance. As early discussed, so much decisionmaking is left to phases after the FSEIS and ROD that it is not possible to determine if maximum conformance with ACMP habitat standards will be achieved. As already noted in the discussion on riparian areas, buffer strips should meet the standards identified by the state as alternatives to the uncertain mitigation described in the draft supplement, or result from site specific prescriptions following state review of subsequent federal consistency determinations.

233-14

Measures intended to mitigate the effects of timber harvesting and road building, until they have been established as effective, should be considered experimental. The draft supplement indicates (in the Kuiu Island Volume, pg. 4-70) that "state of the art" second growth management techniques, including thinning and gap management, will mitigate for harvested deer winter range. To date, this is only speculative and does not even seem particularly logical for years with heavy snow accumulations. The state endorses Forest Service efforts to seek effective mitigation measures, but until determined to be effective, such attempts should not be considered as mitigating the impacts of harvesting deer winter range. Precommercial thinning is a silvicultural treatment which concentrates stand growth on

selected crop trees. The value of such thinning in mitigating the loss of deer winter range from timber harvesting is unknown, although the practice may provide transitory benefit to deer in the early years. The effort, however, is worth pursuing. As thinning accomplishments will depend on the availability of funding, long term reliance on thinning (if found effective) as a mitigation measure will be risky.

OTHER ISSUES OF STATE CONCERN

Tongass Reform Legislation

- 233-15 As you know, Governor Cowper endorses the Southeast Conference compromise for Tongass reform legislation as an alternative to HR 987 and other pending bills. The compromise proposal would place 12 areas of the Tongass in a special Congressionally-protected status that would permanently prohibit commercial timber-harvesting although, unlike designated wilderness, other compatible multiple-use activities could be allowed. Several of the proposed areas fall within the APC contract area and some of these (such as Kadashan and Trap Bay) are proposed for timber harvesting in the draft supplement. To the extent that timber harvesting and associated activities described in the draft supplement conflict with areas proposed for Congressional designation by the state-supported Southeast Conference compromise, they should be deleted pending Congressional consideration of the proposal. Maps which show the boundaries of the 12 areas have been provided separately to your office.

Long-term Cumulative Impacts

- 233-16 The draft supplement concludes that all alternatives considered will have minimal effects on wildlife such as brown bear, deer, and marten. The proposed action, however, is only the latest in a series of incremental actions which over the past 30 years have significantly reduced the capability of forested habitat to support the wildlife species that depend on the old-growth component of the forest.
- 233-17 The general approach used in the draft supplement is that the proposed activities will only affect a small percent of fish and wildlife and therefore the actions do not have a significant impact. Using this approach, Forest Service activities taken in small increments never have a significant impact on fish and wildlife. However, at the end of the current rotation (not just the life of the APC long-term sale) 50 percent or more of the old-growth habitat (and apparently an even higher percent of the most important habitat in stands with more than 50 mbf per acre timber volume) will be gone. This approach seriously underestimates the cumulative effects of the proposed action when taken in the context of the long term timber program of the Forest

- 233-17 Service. The state proposes that an alternative approach be used
Cont. in the FSEIS to address the impacts of each cutting unit or road
on the drainage in which it is located (or possibly within the
specific unit boundaries). An effects analysis at this scale
would probably lead the Forest Service to a different conclusion
about cumulative effects.

Retention Areas

- 233-18 Several alternatives in the draft supplement schedule timber
harvesting in old-growth stands which were planned in the origi-
nal 1986-90 FEIS to be managed under an old-growth prescription
for habitat retention at least until the end of the planning
period. The original 1986-90 FEIS exceeded TLMP retention factor
estimates, assuring sufficient old-growth for species dependent
on this habitat type. While apparently well intentioned, this
avoided the critical need to identify specific areas necessary to
provide long-term habitat and species diversity. A habitat pool
233-19 was deferred from harvest, but no information was assembled to
determine which of the areas were most critical in providing for
the needs of old-growth dependent species. Now the Forest
Service proposes to select units of this habitat pool without
disclosing why they were suitable for harvest, nor the effect of
the group of units on some overall strategy for retention. There
does not appear to be a retention strategy, however, which meets
the needs of old-growth dependent species. The Department of
Fish and Game was not consulted in developing proposals for the
draft supplement to harvest timber in old-growth prescription
areas.

TLMP, as amended, specifically discusses forest-wide procedures
for implementing wildlife and fisheries retention for the remain-
der of the current planning period. Despite clear guidance that
all three administrative areas of the Tongass must employ uniform
procedures in all related planning and management activities, two
substantially different procedures were adopted in the Ketchikan
and Chatham areas to deal with retention. The Ketchikan approach
identified a pool of areas which, with minor exceptions, fish and
wildlife staff from both the Forest Service and the Department of
Fish and Game considered to be the best selection of areas needed
to maintain species diversity over the current rotation. Manage-
ment direction in the KPC 1989-94 FEIS adopted this selection.

In contrast, old-growth prescription areas were identified in the
Chatham area through an in-house process that exceeded the
retention requirements of the area without specifically identify-
ing the best areas to be retained. The Department of Fish and
Game was not involved in this process and questions the validity
of the selected areas. The problem with this approach is illus-
trated by disclosure that the Kuiu Analysis Area is scheduled to
have 70 percent of the timber harvested from high volume stands

- 233-20 (66 percent from Volume Class 6 and 4 percent from Volume Class 7). These stands are the most important winter range for black-tailed deer. The original 1986-90 EIS scheduled 22 percent of the timber harvest from Volume Classes 6 and 7 (20% and 2% respectively). This is a radical (more than three-fold) departure from the earlier management direction which will significantly reduce the more valuable components of the old-growth retention pool.
- 233-21 The state recommends that cutting units proposed for the remainder of the 1986-90 operating period avoid these retention areas, and that the Forest Service, as in the Ketchikan area, establish an interagency task force to thoroughly review the management areas. The task force should arrive at a joint delineation of old-growth prescription areas that will best provide for the habitat needs of old-growth dependent species for the foreseeable future. Any proposed changes to the joint delineation should also involve the task force.

Habitat Capability Models

- 233-22 The use of habitat capability models to assess the impacts of land management activities on selected wildlife species is an important step forward, although the models used in the draft supplement for brown bear, deer, and marten habitat are not the best available.
- 233-23 The state does not agree with the criteria used to determine deer winter range in the draft supplement, and has previously noted this disagreement on a number of occasions. Use of such criteria results in a misleading analysis and consequent underestimation of the impact of logging on deer, and other old-growth dependent species such as marten.
- 233-24 The accuracy of the habitat inventory database used for the habitat capability estimates is uncertain. It appears that three different databases were used. In addition, substantial differences appear to exist between timber inventory information which was provided to the state in April 1987 as the most accurate inventory database available, and the databases used in the draft supplement. These differences make it difficult, for example, to analyze the effects of management activities on old-growth dependent wildlife species.

Brown Bear Impacts

- 233-25 Current and proposed logging on northeast Chichagof Island (Analysis Area 3) threaten the short and long-term survival of the brown bear population. Most experts agree that a closed population of less than 300 individuals is below the numbers required for long-term population viability. Because the brown

- 233-25 Cont. bear population on northeast Chichagof Island is not completely isolated, a population of greater than 150 individuals may be viable if brown bears are not depleted in nearby parts of Chichagof Island. The estimated habitat capability for brown bears in Analysis Area 3 is 138 bears and the state's current population estimate is about 125 bears. Both figures are below the 150 level. Any additional reductions in bear numbers will result in a closure of recreational hunting first and subsistence hunting second. In the opinion of state wildlife biologists, eventual local extinction on northeast Chichigof Island is probable with continuation of the current forest management direction.

Post-EIS/ROD Changes

- 233-26 The state is concerned that substantial changes have occurred between decisions made in the original 1986-90 FEIS and what was actually laid out on the ground such as deletion of lower volume stands and replacement with higher volume stands. Among the revelations appearing in the draft alternative is that timber harvesting since 1980 on Kuiu Island exceeded the acreage displayed in the original 1986-90 FEIS by 8.4 percent. According to the draft supplement, 74 percent of the cutting units selected in the original 1986-90 FEIS and ROD were subsequently changed in the actual layout. As noted earlier, the state believes that the Forest Service should provide consistency determinations for state review for such phased decisionmaking after the FEIS and ROD have been issued.

Recreation Impacts

- 233-27 The draft supplement does not address the impacts on recreational hunters and fishermen which are likely to result from the proposed action. Impacts range from aesthetic changes to altered success rates to loss of recreational opportunities. Hunting patterns have already changed as a result of on-going management activities, and more are expected under the proposed action. Such changes result from habitat loss, altered means of access, increased competition for limited resources and inadvertent losses due to bear/human contacts.

Monitoring

- 233-28 Although 4 years of the 5-year 1986-90 operating period have passed, the state has not seen any data which indicate the results of monitoring. Examples of expected monitoring would be the verification of deer winter range mapping, measurement of deer occurrence, recorded effectiveness of solid waste disposal measures, and the status of eagle tree buffers after logging.

Log Transfer Facilities

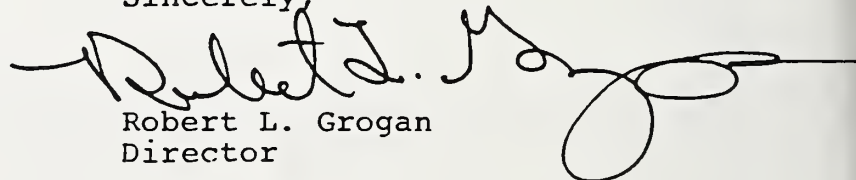
- 233-29 Although proposed log transfer facilities are identified in the draft supplement, lack of specific detail and the requirements of federal and state permitting preclude state concurrence at this time with siting or design. Such facilities will continue to be evaluated by the state on a case-by-case basis in accordance with applicable laws. The resource values in the Port Camden estuary are extremely high, and no suitable site which will not jeopardize those resources has been located in Port Camden. The Forest Service is encouraged to identify less problematic alternative locations.

Subsistence

- 233-30 The Forest Service is currently conducting subsistence hearings in several communities within the area of the proposed action, and will acquire information about the effects of the proposed action on subsistence activities. In the state's view, the subsistence sections of the draft supplement are inadequate as written and do not appear to be an objective analysis. The FSEIS should include a full description of relevant data so that the public can evaluate the conclusions that are reached. The draft supplement, in contrast, is extremely weak on subsistence data. The draft supplement does not make use of easily available historical and contemporary descriptive and quantitative data on subsistence uses, nor does it include subsistence use area maps for affected communities, outline gaps in the data that need to be filled by further research, perform site-specific analyses as required, provide adequate 810 evaluations and determinations, nor does it outline possible measures to mitigate significant restrictions to subsistence uses. Enclosed with this letter are detailed comments prepared by the Department of Fish and Game which will assist the Forest Service in completing an adequate and defensible subsistence evaluation for the proposed action.

Thank you for the opportunity to comment on the draft supplement. The State of Alaska looks forward to an FSEIS and ROD which are responsive to the specific concerns raised by this letter. The state is also prepared to review subsequent federal consistency determinations for phased decision making following the FSEIS and ROD.

Sincerely,



Robert L. Grogan
Director

Enclosure

cc: Commissioner Gorsuch, DNR, Juneau

Commissioner Collinsworth, DFG, Juneau
Commissioner Kelso, DEC, Juneau
Commissioner Mercurieff, DCED, Juneau
Douglas Baily, Attorney General, DOL
John Katz, Office of the Governor, Washington, D.C.
Denby Lloyd, Office of the Governor, Juneau
Thomas J. Maginnis, NOAA, Washington, D.C.
Gary Morrison, USFS, Sitka

Subsistence Comments
Alaska Department of Fish and Game

At the request of U.S. Forest Service, ADF&G staff in the Southeast Region have spent a great deal of time over the past years developing a suggested procedure for conducting ANILCA Sec. 810 evaluations and determinations and in providing the U.S. Forest Service with Department data.

An adequate 810 evaluation and determination calls for the following straight-forward tasks or precedures:

1. Assembling and presenting best available data on subsistence and identifying crucial data gaps. This is the primary baseline or inventory analysis that needs to be presented in the EIS.
2. Evaluating whether or not the proposed activity may significantly restrict subsistence. This step determines on a site-specific basis whether alternatives may significantly restrict subsistence uses.
3. Holding hearings if the proposed activity may significantly restrict subsistence. In this step, data are presented by the U.S. Forest Service in affected communities to a) validate site-specific determinations that alternatives may significantly restrict subsistence uses, b) examine if the planned logging, roading, or other land use activities are necessary as defined by law, and c) identify means of eliminating or mitigating impacts that may significantly restrict subsistence uses.
4. Finding other land for the activity that may significantly restrict subsistence uses or mitigating impact upon subsistence uses if the activity is found to restrict subsistence uses and be necessary.

We do not believe the phase II SDEIS adequately accomplishes these tasks in several broad areas. These include the following:

- 233-31 1. Although the Phase II SDEISs make a slightly better effort at assembling and presenting best available data than in the original EIS, it is still incomplete. The bibliographies for the four volumes include very little of the available articles and reports relevant to subsistence uses in the study areas, none of the literature that provides a more general perspective on subsistence use of fish and game in Alaska, and nothing on Tlingit society and culture.

233-31
Cont.

The many days spent by Division of Subsistence staff with U.S. Forest Service planners are not cited, and the volumes of unpublished data that subsistence staff supplied are neither used nor cited. Only a very limited amount of data from the Tongass Resource Use Cooperative Study (TRUCS) are included and these are often mis-stated.

233-32

Some use has been made of TRUCS mapped data for some communities and we encourage further use of this data base once these mapped data have been reviewed and are final. However, we are concerned about the planning team's use of raw data for planning decisions for two reasons. First, we do not believe that appropriate analysis of raw field data was done by the planning team. This is a task for trained researchers and analysts and must be well documented to meet research standards. Secondly, explicit commitments were made by the TRUCS project leaders with people consenting to be interviewed, with the communities where surveying took place, and with the Native Advisory Committees. These commitments were that mapped data would not be used before community review took place. Mapped data used in the phase II document has not been subject to this review. Use of raw data before it has been objectively analyzed, reviewed, and preferably published is highly questionable. The Division of Subsistence has been consistently on record over the life of the TRUCS project that planning use of raw mapped subsistence data should not take place. The concerns of Mr. Robert Loescher, who wrote on behalf of the Native Advisory Committee about the premature use of the TRUCS mapped data, should be considered.

- 233-33 2. The documents do not provide, on a site specific basis, either adequate data or analysis of the impacts of logging alternatives that may significantly restrict subsistence uses and do not describe what these impacts might be or where they will take place. This is true for both the short-term and the cumulative effects analysis. General conclusions are presented in the place of site-specific substantive analysis. Because the document fails to do its main tasks, public testimony in scheduled 810 hearings are unlikely to be productive.

At a minimum, the public needs to be shown on a site-specific basis the likely cumulative impacts of different logging alternatives on their subsistence uses and mitigation measures that could be implemented.

- 233-34 3. The court-ordered standard "may significantly restrict" is not consistently applied. For example, in the three pages of the Analysis Area 2 volume that should be doing an 810 evaluation and determination, no clear standard is used. In the space of a few paragraphs we find:

"access....will not be affected...
availability of berries will decrease ...
foreseeable activities may possibly restrict
subsistence uses...
will have no measurable effect on coho, chum...."

Since meaningful analysis and 810 evaluation and determination has not been attempted in the DSEIS, a finding of no significant impact is not justified. In fact, there is no clear definition regarding what level of effects is needed to trigger a finding of significant subsistence impact.

- 233-35 The DSEIS is also an appropriate document in which the U.S. Forest Service should describe the Sec. 810 hearing process. Many rural residents do not understand what Sec. 810 hearings are, why they are important, and what community input would be most effective.
- 233-36 4. ANILCA Sec. 810 directs federal agencies to evaluate the availability of other lands for the activity that may significantly restrict subsistence uses or for mitigating impact upon subsistence uses if the activity is found to restrict subsistence uses and be necessary. Substitution of other land for logging and mitigation measures is not discussed in the DSEIS documents.
- 233-37 5. The conclusions from the subsistence analysis of Management Analysis Area 2 are questionable. No site-specific analysis with conclusions is presented. Executive Summary Table aa2-1 states that study area 2 is not a highly used subsistence area and concludes that no significant restriction results from the action proposed in alternatives 2 and 3. Data are not presented in the study area 2 document that support this summary. Data that conflict with these conclusions were supplied to U.S. Forest Service but are not referenced or included. Locations close to Hoonah that are among those most heavily used for subsistence are included in this study area. In addition to Native Corporation land, U.S. Forest Service lands directly across from Hoonah, Mud Bay, Neka Bay, Salt Lake Bay, and Eight Fathom Bight/Upper Port Frederick have been shown to be very important

subsistence use areas in this study area. Mapped and quantitative data from Division of Subsistence studies in Hoonah and Tenakee showing intensity of use of subunits of this study area were supplied to the Forest Service early in the planning process. Major logging and roading activities are anticipated under the DSEIS in these very areas.

- 233-38 6. The finding that, for all alternatives, implementation could potentially affect key subsistence wildlife species in portions of Analysis Areas 3 and 6 does not provide an indication of where specific impacts might occur within the study areas. It also shows that
- 233-39 alternative 2, no further harvest, or roading, will have the same impact as the different action alternatives, presumably because the No Action
- 233-40 Alternative is not a true no action alternative. Even carry-over volume in Analysis Area 3 will take timber in areas identified as subsistence use areas by residents of Hoonah and Tenakee.
- 233-41 The document states that ADF&G minor harvest units 3523, 3524, 3525, 3526 and 3627 could be affected. No maps are provided showing these units, which will make it difficult for the public to know which areas are affected. In checking with the Study Area volumes we found exclusive reliance on raw, unanalyzed TRUCS mapped data. This volume does not provide sufficient
- 233-42 evidence to show that these are the only units affected or clearly state what the effects on subsistence may be.
- 233-43 7. ADFG staff attended the only review of TRUCS maps for Hoonah and Tenakee held to date. At those meetings maps were found to contain plotting or cartographic errors. We also found that maps appeared to have substantive errors in some areas. Both the technical problems with the maps and the substantive errors must be carefully corrected before they are presented as research products in an official document.
- 233-44 8. The conclusion that there will be no increase in competition for subsistence uses in Analysis Area 3 is misleading because it does not take into consideration the effects of competition from a logging community situated within an existing community as already occurs, increases in the size of that logging community and the effects of new camps established by contractors such as has occurred in Salt Lake Bay in 1989. Residents of these camps compete with subsistence users for a limited resource base, thus decreasing

subsistence opportunities.

- 233-45 In Analysis Area 12 a the entire issue is sidestepped with the statement that the subsistence issue will be dealt with in future environmental documents. Clearly, this does not meet the direction of the Court order which resulted in completion of the SEIS.
- 233-46 9. The DSEIS's claim that access will not be affected is invalid. Log transfer facilities, increased boat traffic, log rafting and changes in roading all affect access.
- 233-47 10. The DSEIS states that during the TLMP revision effort, the potential effects on subsistence users from the programmatic prescriptive resource scheduling will be addressed. Department staff have attended a considerable number of TLMP revision meetings and to date the harvesting schedule has not been addressed in any of them.
- 233-48 Although the four volume Phase II DSEIS is a very lengthy set of documents, the data on subsistence is wholly inadequate for making land use decisions that may significantly restrict the subsistence harvest and use of fish and game by
- 233-49 rural residents. Given long-term effects on fish and wildlife expected from the proposed activities we believe there is a strong liklihood that subsistence uses will ultimately be restricted as a result of the proposed activities.

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FOREST SERVICE RESPONSE
Sierra Club Legal Defense Fund
Letter 234

234-1

The Forest Service disagrees that no response was provided concerning previous criticism of the wildlife impacts modeling. The Appeal Record shows that the Forest Service responded to this issue. In addition, the Phase II Draft SEIS addressed this issue by using a different model with updated information in consultation with ADF&G. Please see Theme Response 9 concerning habitat capability modeling.

234-2

Your comment concerns our not having included a brown bear analysis for Analysis Area 6. The 1986-90 Wildlife Society Appeal raised the brown bear as a concern and the Forest Service recognizes the need to evaluate effects of timber harvest on brown bear habitat. During preparation of the Draft SEIS, ADF&G closure policy indicated that the primary concern was in Analysis Area 3. Therefore, we quantified the effect of harvest on brown bear for this analysis area. But increasing pressures on brown bears within Analysis Area 3 have added to the perception of problems for this animal in Analysis Areas 2 and 6. Given the concern expressed in public comments and the Subsistence Hearings, we have quantified the effects on brown bears in Analysis Areas 2 and 6 as well in the Final SEIS. Habitat capability models will be developed and applied to these areas. For additional information on brown bear viability, see Theme Response 3.

234-3

The Forest Service acknowledges the National Marine Fisheries Service (NMFS) policy on riparian habitat management, but disagrees that their policy opposes the Forest Service use of the Aquatic Habitat Management Unit (AHMU) Handbook. We believe that stream bank protection through the use of the AHMU Handbook guidelines provides the best site-specific measures for protecting fish habitat. See Theme Response 4: Site Specificity, for additional information.

234-4

We disagree with your comment that fisheries data cannot be found in the DSEIS. Chapters 3 and 4 display several tables related to fish resources. Individual stream survey information is found in the inventory record (Planning Record), and Council of Environmental Quality (CEQ) Guidelines only require a summary of this data. Additional information concerning fishery resources is also included in Chapters 3 and 4 of the Final SEIS. See Theme Response 8: Planning Record versus EIS Display, for further discussion of this issue.

234-5

The Forest Service believes that Unit Cards, maps, and discussion in the SEIS text are site specific and adequately present the information needed for planning decisions that concern harvest activities and protection of the other resources. Specifically, Analysis Area 12 unit card 421-6 in Appendix C-2 of the DSEIS shows details of road location, harvest acres, stream buffers, cutting boundaries, and information related to each of the resources affected. See Theme Response 6 concerning the planning process for additional information.

234-6

The information provided in the Unit Cards, maps, and discussion in the SEIS text includes site-specific Standards and Guidelines, Mitigation Measures, and evaluation of potential effectiveness of mitigation. The Forest Service dealt with the subsistence issue by a finding of potentially significant impacts upon subsistence use in Chapter 2, page 38, of the DSEIS. This finding led the Forest Service to call subsistence hearings, as required under ANILCA, in 11 communities in southeast Alaska. See Theme Response 4: Site Specificity, and Theme Response 5: Subsistence, for additional information. Also see the discussion of subsistence in the Final SEIS for the Forest Service's final analysis, which considers public comments and the Subsistence Hearings.

234-7

We disagree that the recreation impact analyses are deficient without data on recreation use and demand. Accurate use data for Analysis Areas 2,3, and 6 is simply not available, and use levels in these areas do not justify a monitoring program at this time. Recreation opportunities are the appropriate predictor of impacts to recreation resources for this project (see our response to Comment 234-42). In addition to the recreation opportunities, "Recreation Places" are considered in the analysis, which designates additional recreation value to places commonly used by the public for recreation.

The Forest Service does not propose new roads to satisfy recreation demand, as the comment implies. New roads are proposed to transport timber, although the Forest Service recognizes that these roads may also provide additional recreation opportunities. We also perceive the need to provide for roadless opportunities, but do not recognize a shortage of these opportunities in the Contract Area at this time or in the reasonably foreseeable future.

234-8

The five Unit Cards presented in Appendix C of the DSEIS are examples of very site specific information available for each harvest unit. We have also provided all of the Unit Cards excluded from the Draft SEIS in the Final SEIS Appendix A-1. Alternative road locations, associated impacts, and proposed mitigation are evaluated on Planning Record maps, in Chapter 2 of the Phase II Draft SEIS, and on the Unit Cards. In addition, proposed road

management options and road management objectives were evaluated for each alternative in DSEIS Appendix C. See Theme Response 4: Site Specificity, for additional information.

234-9

The five Unit Cards presented in Appendix C of the DSEIS are examples of very site-specific information available for each harvest unit. These Unit Cards contain proposed Standards, Guidelines and Mitigation Measures, in addition to an evaluation of mitigation effectiveness. See Theme Response 4: Site Specificity, for additional information.

234-10

H.R.987 passed the House of Representatives after the Phase II Draft SEISs were complete. The ROD issued after completion of the Final SEIS will announce the Forest Service position on this pending legislation. See Theme Response 2 for additional information concerning the Forest Service position on Draft SEIS acknowledgement of this legislation.

The Draft SEIS did provide data concerning the resource values for VCUs listed in H.R. 987. These VCUs are Point Adolphus and Mud Bay (VCUs 191, 192, 194, 195, 196 and portions of VCU 193), Trap Bay (VCU 237), Kadashan (VCU 235), South Kuiu Island (VCUs 403, 405.1, 416, 417, and 418) and Rocky Pass (VCUs 427 and 428).

The Draft SEIS does accommodate the potential effects of H.R. 987 through Alternative 1, the No Action - Current Direction and No Further Harvest Alternative. The portion of the bill which would cancel the APC Long-Term Contract is also addressed in Chapter 2 of the Draft SEIS under "Alternatives considered but eliminated from detailed study". Cancellation of the Contract was eliminated as an alternative, because it clearly did not meet the purpose and need of the SEIS. See the FSEIS Consolidated Appendix, Volume III, F for additional information on why this was not considered as an alternative.

234-11

The Forest Service believes it is not practical to publish the hundreds of records, maps, and documents contained within the Planning Record. The organization of the Draft SEIS complies with CEQ regulations governing the preparation of these documents. See Theme Response 8 for further details concerning this issue.

234-12

The Forest Service believes a final determination on subsistence is not required until the Final SEIS, when analysis of the Hearing Record on Subsistence will be provided. See Theme Responses 1 and 6 concerning public involvement and the planning process for further information concerning these issues.

234-13

The *Tenakee v. Courtright* affidavits, available for review in the Planning Record, provide APC historic and projected needs. Alternatives were considered which would allow APC to obtain all timber from the existing road system. The Regional Guidelines for timber harvest unit dispersal require the Forest Service to consider effects of unit location on all resources including wildlife, fisheries, etc. For some harvest alternatives, the Regional Guidelines would be exceeded if all the units were concentrated in areas that contained an existing road system. Regarding legislation before the U.S. Congress, please see Theme Response 2: H.R. 987.

234-14

The Forest Service did respond to all Phase I SEIS comments related to the Phase II Draft SEIS in Appendix B of the latter document. Comments not pertinent to Phase II topics were not addressed in the Phase II document, but will be addressed in the FSEIS Consolidated Appendix, Volume II, D.

234-15

As stated on Chapter 2, page 18, the IDT reviewed and considered the Administrative Appeals in their analysis of the alternatives. We also addressed appeal concerns reflected in the *Tenokee Springs v. Courtright* and *Hanlon v. Barton* cases. In doing so, the Forest Service believes that the SEIS has addressed those concerns. In answer to your concern about the "lack of site specificity," see Theme Response 4: Site Specificity. For our response to your comment on "the narrow range of alternatives," see Theme Response 6: Planning Process. We assume that the comment on the quality of environmental data and analysis employed refers to the use of habitat capability models. See Theme Response 9 for information on the habitat capability data and models we used.

234-16

Your comment concerns the possibility of siting harvest units in already roaded areas. For some of the alternatives, Regional Guidelines for timber harvest unit dispersal would be exceeded if all units were placed in existing roaded areas. The Forest Service therefore proposes harvesting in already roaded areas only to the extent that these entries fall within the Regional Guidelines.

234-17

Despite your disagreement, we do believe that to stop harvest in Analysis Area 2 would cause the Forest Service to breach APC contractual obligations. Please also see our response to Comments 234-29 and 234-67.

234-18

We planned units in already roaded areas to the extent allowed in keeping with policies set forth in the Alaska Regional Guide, which establishes standards for the size and distribution of openings. We refer you back to our responses to Comments 234-13 and 234-16.

234-19

An errata sheet containing maps which identified each unit by number was provided for the Phase II DSEIS. We disagree that all maps should have been reprinted in the DSEIS with the corrections incorporated before the end of public comment period. Such action would have unnecessarily delayed the planning process. The public comment period was extended by several weeks to provide additional review time for the supplemental information. Maps in the FSEIS will contain unit numbers for each area.

234-20

The Forest Service is unable to respond to the noted comments from ADF&G due to the lack of citation or more detailed identification.

234-21

The Forest Service disagrees that mapped information concerning private lands must be presented. This information is available in the Planning Record, and can be reviewed by the public at any time. See Theme Response 8 for a general discussion of what information is appropriate to publish in the EIS.

234-22

Table 2-1, which is in Chapter 2, page 16, does contain harvest unit numbers which correspond to the errata maps provided.

234-23

Alternative 3 does not propose to harvest 3000 acres of "important old-growth" habitat. It should be noted that the acreage referred to is forested habitat while no harvest was proposed in emphasis habitat areas as beach fringe, estuarine fringe, and deer winter range.

234-24

We do not understand how a table displaying completion of units with alternative logging systems in the 1981-86 and 1986-90 plans would be helpful in evaluating the alternatives proposed in the SEIS. Alternative J in the 1986-90 FEIS proposed 19,647 acres, or 99 percent, of the timber to be harvested using highlead systems, with the remaining 1 percent using skyline systems. Economic conditions at the time of these plans did not allow more acreage to be efficiently harvested using skyline yarding systems. As planned, between 1981 and 1988, APC has used highlead systems to harvest 12,357 acres in Analysis Areas 2,3,6 and 12.

The Draft SEISs propose use of a combination of highlead and skyline yarding systems (see tables in Chapter 2 showing distribution of proposed harvest systems) as necessary to meet multi-resource objectives. Historically, highlead has been the primary method of harvest, with some use of skyline systems. Both highlead and skyline are considered standard yarding methods. Helicopter, balloon, and long span skyline are considered nonstandard yarding methods and are only warranted under special circumstances.

Changes between the alternatives proposed and the action that is selected will be documented in the ROD. In addition, the "Implementation Monitoring" and "Process for Change" sections of the ROD will address how potential post-ROD changes in harvest systems will be monitored and will satisfy NEPA requirements.

234-25

Areas authorized for harvest had not been reserved as old growth, but had been prescribed for management as old growth through at least 1990. See Chapter 4, page 14, and Table 4-10. This prescription was in effect pending the NEPA evaluation in Phase II. Phase II is a continuation of the NEPA process which includes the evaluation of impacts on old-growth forest areas.

234-26

Cost share was considered one of several alternative ways to reach the harvest unit. Should this alternative be selected and an agreement is made to share costs, it would apply only to this entry and the cumulative effects described in Chapter 4 would apply. The final determination on this issue will be made in the ROD.

234-27

The Errata sheet which followed the Draft SEIS provides maps which locate the individual harvest units listed in Tables 2-1 and 2-3. It also includes tables which show the 1981-86 and 1986-90 harvest units. A table correlating the carryover units from 1981-86 with their 1986-90 numbers is provided in the FEIS.

234-28

We disagree that the tabular presentation of impacts in Chapter 2, Comparison of Impacts, is programmatic. For example: acres of habitat types impacted are quantified, expected changes in VQOs are presented, and impacts to jobs and salaries are quantified. The charts are not intended to provide data nor indepth analysis by VCU, but are a summary of the information which is given very detailed treatment in Chapter 4. This arrangement allows the readers to compare the differences between the alternatives, and is in keeping with CEQ-approved format.

234-29

We disagree that our conclusion of impacts resulting from the No Action Alternative are unsubstantiated. Our conclusions are based on the reasonable assumption that the Forest Service would not be able to make up the timber volume in other areas. Harvest of timber along existing roadways was considered to the extent possible within Regional Guidelines (USDA Forest Service 1983a), which limits the size and dispersion of created openings. Our reasons for not evaluating alternatives that considered volume outside of the Contract Area are addressed in the DSEIS Appendix B-3 (for Analysis Area 2). A breach of contract would result if the agency did not supply a minimum of 696, 219 MBF of timber, as agreed to on January 4, 1985. This agreement is included in the Phase I Appendix. Large monetary claims can be expected to follow any substantial breach.

234-30

We have included information on the data and assumptions used in the wildlife models in Theme Response 9. We have also supplied additional information on the models used in the FSEIS Consolidated Appendix, Volume II, E. Also see Chapter 3, pages 3-30 and 3-31 (deer); and page 3-35 (pine marten) in the Phase II Draft SEIS (AA2).

234-31

NEPA does not give a definition of the required level of site specificity. Nevertheless, refer to Chapter 4, page 4-18, where Table 4-12 shows the potential reduction in deer numbers by harvest area and VCU. In addition, the maps of the alternatives show the geographical locations of the VCUs and the harvest areas within them. Also see Theme Response 4: Site Specificity.

234-32

We disagree that Table 2-8, "Changes in Old-Growth Habitat Due to Timber Harvest", does not explain its origin and assumptions. As cited, its source is the 1986-90 FEIS, where acres of old growth habitat condition were originally determined. The locations of the old growth areas are shown on Figures 2-1 through 2-3, also cited on the table. This table summarizes data given in Table 4-10. Again, information in Chapter 2 serves as a summary of the more detailed information in Chapter 4.

234-33

We disagree that the SEIS does not satisfy ANILCA. Please see Theme Response 5: Subsistence. In addition, it is clearly stated in Chapter 2, page 38, that there was sufficient evidence of potential significant impacts upon subsistence use. This finding led the Forest Service to call subsistence hearings, as required under ANILCA, in 11 communities in southeast Alaska. For information on our final subsistence analysis, which includes response to public comments and the Subsistence Hearings, see the Final SEIS.

234-34

We have included a discussion of non-timber employment and impacts in the Final SEIS.

234-35

We have considered alternatives that maximize use of existing roads to the extent possible under the Alaska Regional Guide (USDA Forest Service 1983a). The Alaska Regional Guide policy for timber harvest unit dispersal would be exceeded if all proposed units were located in already roaded areas (page 3-19 through 3-22). We proposed harvesting in already roaded areas to the extent that these entries fall within these Regional Guidelines. No logging or road-building is proposed for Point Adolphus. Regarding your comment on the "limited range of alternatives", please see Theme Response 6.

234-36

Alternative 3 has not been selected, but has been tentatively identified as the preferred alternative. The actual selection of an alternative will occur in the ROD.

234-37

We disagree that the Draft SEIS is not adequately site specific. Please see Theme Response 4: Site Specificity. Again, the information provided in the Unit Cards included site specific Standards and Guidelines, Mitigation Measures, and evaluations of the potential effectiveness of mitigation. A complete set of Unit Cards are included with the FSEIS as Appendix A-1. Chapter 4 of the Draft SEIS examines the how the individual harvest units would affect each VCU and the analysis area. We believe that these analyses are adequately site specific.

234-38

The purpose of Chapter 3 is to portray the affected environment, not to present results of impact analyses. The latter is contained in Chapter 4. Chapter 3 provides a site specific description of the analysis area by VCU. For more specific information on slopes and soils, see the Unit Cards, all of which are included as Appendix A-1 in the Final SEIS.

We do not agree that it is necessary to quantitatively estimate landslide risk. As we state in Chapter 4, page 2, all areas in Analysis Area 2 that are considered to carry a high risk of mass wasting or which contain extreme hazard soils were eliminated from consideration for road-building and harvest units. Soil conditions and mitigation measures are also indicated on the Unit Cards (Final SEIS, Appendix A-1).

234-39

We have provided unit-specific information on harvest modifications from the 1981-86 and 1986-90 FEISs. Refer to Appendix C-2 (Draft SEIS, Analysis Area 2), in which all unit changes, the reasons for changes, and their potential environmental impact are given in detail.

Unit modifications are subject to NEPA and we believe that we have satisfied these requirements. For more discussion, see Theme Response 6: Planning Process.

234-40

The potential impacts, including potential human use impacts, of proposed roads are discussed at length in Chapter 4. The effects of roads are considered in relation to soils (page 4-2); fisheries (page 4-22); recreation (page 4-29); and transportation costs (page 4-37). Pages 4-39 and 4-40 contain discussions of road effects on subsistence access, subsistence gathering, subsistence wildlife, and salmon.

234-41

Chapter 3 discusses the Affected Environment, or present situation, and is not the appropriate context for discussion of the site specific impacts of proposed timber harvesting. Chapter 4 analyzes the effects of the alternatives by VCU.

234-42

Contrary to your implication, neither the Alaska State Division of Tourism nor the Recreation Visitor Day (RVD) survey for the Tongass have VCU-specific data for past, present, and potential recreation use of this area.

We disagree with your statement that our discussion of recreation use in Analysis Area 2 is deficient. Recreation use in Analysis Area 2 is low in comparison to other areas of the Tongass National Forest, and is not the appropriate criteria for evaluating the alternatives. Issue 8 (page 1-18, AA2) concerns a specific desire to maintain the primitive character of many areas in Southeast Alaska for its visual, recreation, and Wilderness values. The Recreation Opportunity Spectrum (ROS) classes (Table 3-21) addresses the character of the area as it provides for various recreation opportunities ranging from primitive to rural, and provides the appropriate basis for making a reasoned choice between alternatives considering the issue above.

234-43

We disagree that the Draft SEIS fails to provide site-specific cultural resource data. Please see Chapter 3, page 53, Table 3-24, which lists previous surveys of cultural resource sites by VCU. In addition, see Chapter 4, pages 32 and 33, where there is a discussion of the National Historic Preservation Act, the American Indian Religious Freedom Act, and the consultation

process implemented through the State Historic Preservation Officer. As we state in this section, the Forest Service has determined that an inventory of all cultural resources for all of the APC project alternatives would be costly and impractical, but a thorough evaluation of cultural resources and appropriate protection measures will be applied to the selected alternative.

234-44

We agree that the Hoonah community are not the only subsistence users in Analysis Area 2. In Chapter 3, Table 3-27 evaluates deer hunting by community, including Elfin Cove, Gustavus, and Pelican. In addition, Figure 3-20 shows overall community subsistence use of VCUs in Analysis Area 2. Please see Theme Response 5: Subsistence.

Commercial fishing and guiding are not recognized as subsistence uses under State regulations. See the Final SEIS discussion on socioeconomics for information on these industries.

The ADF&G studies referred to in the comment are not referenced such that we are able to respond. The Final SEIS, however, provides an expanded listing of the sources from which we obtained subsistence data.

234-45

We disagree that the section on soil impacts is incomplete. We stated in Chapter 4, page 2, that areas determined to pose a high risk of mass wasting or extreme soil hazard were excluded from consideration for harvesting and road building. Site specific soil information is given on the Unit Cards, all of which are included in FSEIS Appendix A-1.

234-46

We disagree that the DSEIS fails to differentiate between site-specific values of a particular VCU. Chapter 4, page 19, describes indicator species and habitat types that are most important to them, as well as estimates of the amount of each habitat type that will remain under the proposed alternatives. Pages 4-7 to 4-18 show the potential effects of all of the alternatives on the various habitat types associated with these species by VCU.

The Unit Cards (Appendix A-1, FSEIS) provide additional specific information on wildlife and wildlife habitat. Supporting information for the deer habitat analysis appears in the Wildlife Habitat Model Description and Evaluation in the consolidated Appendix, Volume III, E-1. Also see Theme Response 7: Sitka Black-tailed deer, for general information on this species throughout the project area.

See our response to Comment 234-2 regarding our presentation on the brown bear.

234-47

We continue to hold our position that application of the Aquatic Habitat Management Unit (AHMU) procedures will minimize or eliminate significant impacts to riparian habitat on National Forest lands. Please see Theme Response 4: Site Specificity.

234-48

We disagree that the Draft SEIS fails to provide site-specific information on stream qualities as they relate to fisheries impacts from logging activities. In the Draft SEIS Chapter 3, Affected Environment, Table 3-20 presents the percent by VCU of past harvest adjacent to Class I and II streams. Stream classes are identified on maps in Chapter 2 of the Draft SEIS. Together, the Unit Cards (Appendix A-1, FSEIS), maps, and SEIS text identify site-specific fisheries and hydrology characteristics of the harvest units, define proposed mitigation measures, and estimate the effectiveness of these measures.

234-49

We disagree that our discussion of streamflow impacts is not adequately site specific. As we acknowledge in Chapter 4, page 57, data on specific streamflows in response to harvest are not available for Southeast Alaska. Tables 4-27 and 4-28 provide projections through 2011 for watershed harvests on both Native corporation and National Forest lands. On page 4-54, we explain the concept of the 25 percent harvest threshold for watersheds. This narrative, in conjunction with the tables, explains the relationship between that threshold and the projected harvest for each VCU.

234-50

We disagree that the potential impacts of sedimentation are not addressed in the Draft SEIS. As stated on pages 4-26 and 4-27, Best Management Practices (BMPs) are designed particularly in response to the problem of potential sedimentation impacts. BMPs are based on the scientific studies cited in these pages.

234-51

Based on the relevant issue of concern, recreational opportunity is the appropriate predictor of recreation impacts. See our response to Comment 234-42.

234-52

We agree that the subsistence data presented in the Draft SEIS was not complete. For our final subsistence analysis, see the Final SEIS, which includes response to public comments and Subsistence Hearings. Also see Theme Response 5: Subsistence.

234-53

Our discussion of transportation is not intended to provide information on impacts to other disciplines from roads. Rather, it is intended to provide a picture of the anticipated transportation system in 2011. For a discussion of the impacts of projected 2011 harvest levels and transportation facilities, see the discussions in Chapter 4 for each resource affected. Also see the Final SEIS for additional information on recreation, wildlife, and subsistence.

234-54

We disagree that our wildlife impact analysis is not site specific. Please see Chapter 4, Table 4-26, which projects the amount of wildlife habitat, by type and VCU, expected to remain after 2011. On pages 4-50 and 4-51, there is a narrative description of the long-term foreseeable potential impacts to wildlife habitat, with high- and low-end VCU percentages. Assumptions used in the habitat analysis are documented in the MELP data base, which is contained in the Planning Record.

The projections on which long-term cumulative effects are based do not rely on known harvest units or roads, but the long-term vision of the Forest Plan. Site-specific impacts will not be available on long-term projections until release of the NEPA document which proposes their actual siting. In order to reduce the apparent confusion over impacts of proposed actions (the first part of Chapter 4) and the reasonably foreseeable future impacts (latter half of Chapter 4), the differentiation will be made clearer in the Final SEIS.

234-55

We do not rely on "untested mitigation measures", but on established Aquatic Habitat Management prescriptions and Best Management practices to assure little or no potential impact. Chapter 4 Tables 4-27 and 4-28, show site-specific impacts on watersheds. We also disagree with your statement that "major amounts" of each project area VCU will be harvested, as no VCU on National Forest land is projected to be harvested by more than 13.2 percent (Table 4-28). Assumptions used in the habitat analysis are documented in the MELP data base, which is contained in the Planning Record.

For general information on the site-specificity of the reasonably foreseeable long-term analyses, see our response to Comment 234-54.

234-56

We believe that recreation opportunity, not recreation use, is the appropriate predictor of impacts for recreation resources for this project. Please see our response to Comment 234-42.

234-57

We do not state that we have "no information" on cultural resources. On the contrary; as shown in the Draft SEIS on pages 4-32 and 4-33, numerous studies have been done on cultural resources. Also refer to our response to Comment 234-43.

234-58

We disagree that the DSEIS for Analysis Area 2 does not provide information on subsistence uses for the VCUs. See Chapter 3, pages 3-72 to 3-76. Future subsistence uses and the proposed alternatives' impacts upon various aspects of subsistence use are discussed in Chapter 4, pages 4-38 to 4-40. Potential foreseeable long-term effects on subsistence use are discussed in Chapter 4, pages 4-63 to 4-66. This analysis also specifically addresses the potential long-term effects of logging and road building on these uses (see page 4-64). Also see Theme Response 5: Subsistence.

The potential impacts of logging on subsistence resources such as wildlife and fish are discussed in the wildlife analyses in Chapter 4, as well as in the Chapter 4 section entitled "Reasonably Foreseeable, Long-term, and Cumulative Effects".

Please see the Phase II Final SEIS for our final analyses on subsistence and wildlife resources, considering results of public comments on the Draft SEIS and subsistence hearings.

234-59

The Forest Service believes that Unit Cards, together with maps and the SEIS, text provide adequate site-specific analysis. In response to public comment, we have included all of the Unit Cards in the Final SEIS. See the ROD "Implementation Monitoring" and "Process for Change" sections and Theme Response 6: Planning Process, for information on NEPA requirements for post-ROD changes. Also see our response to Comments 234-5 and 234-9.

Unit Cards do not provide information on long-term and cumulative impacts. For general information on the site-specificity of the reasonably foreseeable long-term analyses, see our response to Comment 234-54.

234-60

We believe that the Unit Cards are an appropriate means of displaying unit-specific information in the SEIS. Publication of the Unit Cards in the SEIS fully incorporates them in the NEPA process. Further post-ROD unit changes are also subject to NEPA. For an explanation, see our response to Comments 234-5, 234-9 and 234-59.

234-61

We do not agree that Appendix A-4 of the Draft SEIS should contain a full set of the *Hanlon v. Barton* affidavits, as this Appendix was used as support for information on economics, not on the court case. In this Appendix, in pages A-29 through A-40, for example, is information on the industry's level of investment, on the wages supplied to the Hoonah community through logging, and on the potential losses which would occur if Wrangell Forest Products or the APC mill were to shut down. Nevertheless, in response to the perception that this Appendix gives an unbalanced view, we are excluding it from the Final SEIS. All of the court documents, however, will remain as part of the Planning Record.

234-62

Appendix B-1 was not intended to provide our complete response to comments on the Phase I Draft SEIS. The Phase I Final SEIS is the appropriate place for a full response to comments on the Phase I Draft SEIS and this is provided in the FSEIS Consolidated Appendix, Volume II, C. In Appendix B-1 of the Phase II DSEIS, we provided response to comments on the Phase I Document that would help the reader better understand the organization of the Phase II document.

For information on why units were not further concentrated in already roaded areas, see our response to Comment 234-16.

234-63

We did not consider H.R. 987 in the Draft SEIS because the bill had not passed at the time that the Draft SEIS was being prepared. This bill still has not passed the Senate or been reviewed by the President. The bill may either change substantially before passage, or it may not be enacted at all. For our response to the bill in relation to the SEIS, see Theme Response 2.

As stated in Chapter 1, Purpose & Need, the purpose of the SEIS is to evaluate the environmental effects of implementing proposed alternatives that satisfy the existing APC contractual agreement. The No Action - Current Direction and No Further Harvest Alternative evaluation provides information on the potential effects of H.R. 987.

234-64

Please see our response to Comment 230-30.

234-65

In response to public comment, we are including additional information on the wildlife models used for the SEIS. Please see Theme Response 9. Much of the data is printed on a series of computer printouts which are available as part of the Planning Record, but which were too voluminous to be included in the SEIS.

234-66

We disagree that the public involvement for the SEIS has been legally inadequate. Please see Theme Response 1: Public Involvement. Numerous opportunities for comment and participation were provided through the Subsistence Hearings, the Open House sessions which preceded each hearing, and the public comment period on the Draft SEIS. Those unable to attend the Subsistence Hearings were invited to submit a written response, in person or by mail, or have someone take their place at the Hearings. Each of these processes provided meaningful opportunity for information and involvement.

234-67

We disagree that an inadequate range of alternatives were evaluated. As stated in the Draft SEIS, the Purpose and Need for this project EIS was to evaluate the environmental effects of proposed actions, while satisfying the APC contract. Council of Environmental Quality (CEQ) Guidelines allow the lead agency to determine the purpose and need the EIS. In regard to range of alternatives, see DSEIS Appendix B-3, Concerns 1-4 (Analysis Area 3).

234-68

The SEIS text describes the location of Log Transfer Facilities. Detailed information on LTFs can be found in the Planning Record, including the map "Southeast Alaska Tideland Locations for Log Transfer and Storage (Faris and Vaughn, 1984).

234-69

Carryover and approved units were identified on the Errata sheet that followed the Draft SEIS. Please see our response to Comment 234-27.

234-70

Alternatives were considered which maximized the harvest along existing roads to the extent possible under policy of the Alaska Regional Guide. Please see our response to Comment 234-35.

234-71

Chapter 2, Comparison of Impacts, presents our evaluation of the trade-offs, including benefits and impacts, among the alternatives. The information in this portion of Chapter 2 is not intended to present all information of impacts that are discussed in Chapter 4, but a summary comparison of all alternatives together. Please note that Alternative 3 was not selected, but was tentatively identified as the preferred alternative. The actual selection of an alternative will take place in the ROD.

234-72

Please see our response to Comment 234-2 concerning why our brown bear analysis was only

conducted for Analysis Area 3.

234-73

In response to the comment that wildlife and fisheries analyses are not site specific, please see our response to Comment 234-46. The same detailed information on wildlife and wildlife habitat is included for Analysis Area 3 in Chapter 4. On pages 4-50 and 4-51, information on miles of Class I and II streams, including the percent harvest, are presented for each VCU. More detailed information is found in the Unit Card.

234-74

We disagree that our recreation analysis is "meaningless". Please see our response to Comment 234-42. The same information on recreation is included for Analysis Area 3 in Chapter 3.

234-75

We disagree that the DSEIS presents too little information on the existing use of each VCU for subsistence. Figure 3-18 shows the subsistence resources used by VCU. In addition, Figures 3-19 through 3-22 and Tables 3-29 through 3-31 provide information on which subsistence communities use various resources and their level of use. For additional general information on subsistence use, see Theme Response 5: Subsistence.

234-76

The meaning of acres and percent "remaining" in the wildlife tables is explained in the text preceding each Table. For example, in the text preceding Table 4-7, it explains that the table refers to forested habitat remaining at the end of the harvest proposed and approved through December of 1990.

234-77

We believe that the information presented in Table 4-18 and the accompanying text adequately summarize the impacts of the proposed action on brown bear habitat. The Forest Service is responsible for managing the Forest for brown bear habitat. ADF&G is responsible for managing the brown bear population. The decline in brown bear numbers can only partially be attributed to the loss of habitat. Mitigation measures have been prescribed on a unit-by-unit basis on the Unit Cards. Both seasonal and longer-term road closures may be used to mitigate effects on the brown bear. The Forest Service also upholds regulations enforced by the Department of Environmental Conservation concerning incineration and off-site transfer of garbage from logging camps. Due to public response, additional information has been provided on the brown bear in the Final SEIS and in Theme Response 3.

234-78

The comment that "6 to 10 percent impact in just two seasons translates into an enormous impact" is overstated. The 6 to 10 percent reduction cited is based on the 1961 population,

which was used as a baseline from which to track reductions. In Chapter 4, page 25, Table 4-16 shows that the potential reduction in deer under the action alternative would range from 1.4 to 3.3 percent. Table 4-18 shows a reduction of 2.3 to 5.4 percent for brown bear and Table 4-20 shows a reduction of 1.5 to 3.5 for pine marten under the action alternatives. These potential reductions are not considered significant.

Impacts for the reasonably foreseeable future are discussed in the latter half of Chapter 4. In Chapter 4, Figure 4-2 indicates the incremental reductions over 5 time periods, and within three ownerships. Mitigation measures for assuring population viability are shown in the Unit Cards (Appendix A-1, Final SEIS).

234-79

We disagree strongly that our subsistence analysis falls short of NEPA or ANILCA requirements. The Final SEIS and ROD complete all of our procedural obligations under ANILCA. ANILCA establishes procedures for resolving conflicts between subsistence and other resource uses, but does not establish subsistence as a priority use whose protection overrides all other uses. Please also see Theme Response 5: Subsistence, and the revised Final SEIS text, which includes response to public comment and the Subsistence Hearings.

234-80

By 2011, timber harvest activities are expected to result in a 2 to 28 percent reduction in brown bear habitat in most VCUs in Analysis Area 3. As discussed in Chapter 4, road closures and other mitigation measures are expected to result in long-term improvement. We have provided additional general information on brown bear viability in Theme Response 3.

234-81

Alternatives were considered which maximized the harvest along existing roads to the extent possible under policy of the Alaska Regional Guide. Please see our response to Comment 234-35, which also applies to Analysis Area 6.

234-82

The comment indicates that Table 2-7 has not been interpreted correctly. It identifies the effect on deer winter range in relation to the data given in Table 4-4, Chapter 4. As Table 4-4 shows, no harvest of deer winter range is proposed for Alternatives 1, 4, or 6.

234-83

In response to the comment that wildlife and fisheries analyses are not site specific, please see our response to Comment 234-46. The same detailed information on wildlife and wildlife habitat is included for Analysis Area 6 in Chapter 4. On pages 21 through 27 of the Draft SEIS (Analysis Area 6), information on miles of Class I and II streams, including the percent

harvest, are presented for each VCU. More detailed information can be found in the Unit Card.

234-84

Based on public comments on the Draft SEIS and at the Subsistence Hearings, we have provided additional information in the Wildlife and Subsistence sections of the Final SEIS. Also see Theme Response 4: Site Specificity, and Theme Response 5: Subsistence, for additional general information on these topics.

234-85

We disagree that the wildlife analysis fails to describe site-specific impacts. Please see our response to Comment 234-46, pertaining to wildlife and wildlife habitat analysis. This same information is included for Analysis Area 6 in Chapter 4.

234-86

Bear viability was not an issue of concern in Analysis Area 6 when the Draft SEIS was being prepared. The Final SEIS will include this information for Analysis Area 6. Road management options pertaining to bear viability will also be included.

234-87

Again, we believe the discussion of wildlife and fisheries impacts is specific. Please see Theme Response 4: Site Specificity.

234-88

We disagree that we ignored subsistence impacts associated with re-opening the Corner Bay and False Island logging camps. On page 46 of Chapter 4, we acknowledge an increase in competition for wildlife resources by residents of the False Island logging camp. On page 49, we acknowledge the potential for increased competition for use of salmon from residents of False Island and Corner Bay logging camps. These findings were preliminary pending public comment and the Subsistence Hearings. Please see the Final SEIS for additional information on impacts of the alternatives on subsistence use. Also see Theme Response 5 for additional general information on subsistence.

234-89

We have evaluated site-specific long-term and cumulative effects to the extent possible, considering long-term activities are not yet planned on a site specific basis. Our impact analysis of the alternatives considers past harvest, and therefore considers cumulative impacts. Please see our response to Comments 234-40 and 234-54. This same information is included for Analysis Area 6 in Chapter 4.

234-90

We believe our range of alternatives was adequate to meet the Purpose and Need of the SEIS (Chapter 1). See Theme Response 6: Planning Process, and the FSEIS Consolidated Appendix, Volume III, F for further discussion on our range of alternatives. Please see our response to Comment 234-35, pertaining to the Regional Guidelines on unit dispersion. This response also applies to Analysis Area 12.

234-91

We disagree that the document does not provide a definition for deer winter range. In Chapter 3, pages 21 and 23, we describe deer winter range as one habitat type used by the Sitka black-tailed deer. In Chapter 2, Table 2-5, we refer to *deer winter range* (307 acres). In Chapter 4, Table 4-2, we refer to *forested habitat* (2,965 acres). Our summary of deer winter range acreages is based upon mapped inventory data which is part of the Planning Record. This data is also available in the 1986-90 FEIS (Appendix 3, page GL-2).

234-92

We agree that the section about congressional action needs to be updated to reflect the content of H.R. 987 and S.B. 346. Please see the Final SEIS and Theme Response 2: H.R. 987.

234-93

The risks associated with blowdown and salvage operations were addressed in previous EISs. Both the APC 1976-81 FEIS (pages 110 and 130), and the APC 1981-86 FEIS (page 53), acknowledged that blowdown would occur and that salvage of this timber would have high priority.

234-94

We disagree that the wildlife and fisheries analysis does not include enough site-specific information to meet NEPA requirements. NEPA does not have standards on the degree of site specificity required, but we believe our discussion provides adequate site-specific information. Chapter 3, pages 28 through 30 discuss deer habitat capability and predation. The effects of timber harvest on deer habitat capability is discussed the DSEIS in Appendix C-5, "Wildlife Habitat Model Description and Evaluation".

234-95

A new black bear model has been developed for the TLMP revision. The data to run this model, however, is not yet available. Nevertheless, we have considered potential impacts to black bears in the FSEIS.

An explanation of the wildlife models was provided in the Draft SEIS, Appendix C-5 (Analysis Area 12). In response to public comments, we have provided additional information on the models, including data and assumptions. See the FSEIS Consolidated Appendix, Volume II, E.

234-96

We have evaluated site-specific long-term and cumulative effects to the extent possible, considering long-term activities are not yet planned on a site specific basis. Our impact analysis of the alternatives considers past harvest, and therefore considers cumulative impacts. Please see our response to Comments 234-40 and 234-54. This same information is included for Analysis Area 12 in Chapter 4.

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Volumes AA-2, AA-3, AA-6 and AA-12

Dear Mike:

Thank you for the opportunity to offer comments to Phase II of the Draft Supplemental Environmental Impact Statement (DSEIS) for the Alaska Pulp Company operations up to December 31, 1990. We offer these comments on behalf of our clients in the City of Tenakee Springs v. Courtwright case, which include the Southeast Alaska Conservation Council (SEACC), the Sierra Club, the Wilderness Society, and the City of Tenakee Springs, as well as the Appellants in the SEACC appeal of the 1986-90 Operating Plan. They supplement and incorporate our earlier comments on the Phase I DSEIS.

GENERAL COMMENTS

As our previous comments (October 24, 1988) made clear, we find that the Forest Service's decision to segment its analysis into two phases has created significant problems in our review of the DSEIS. Moreover, major flaws in the Phase I draft document have not been eliminated by the Phase II documents; these purportedly site-specific documents suffer greatly from the shaky foundation laid in Phase I. The artificially narrow constraints set in the Phase I document limit the alternatives available in Phase II, which in turn forces Phase II to recommend ill-advised decisions, including heavy roading and logging in areas Congress is considering for wilderness status and additional impacts to subsistence use areas near Hoonah, Tenakee Springs, Angoon, Kake, Elfin Cove and Sitka.

Thus, the choices made in the Phase I document preordained the selection of where and how intensively to propose logging in Phase II. The constraints of the APC contract needlessly limited all alternatives. Large areas, such as Rodman Bay, have been eliminated from any analysis even though they alone could provide enough timber from existing road systems to contribute the bulk of APC's timber requirements. Alternatives which meet APC's actual timber needs either from areas outside the contract area or with non-National Forest supplies were ignored. Alternatives which would log only in the previously roaded portions of the analysis areas studied (AA-2, AA-3, AA-6 and AA-12) were also ignored. Every action alternative identified as "preferred" by the Phase II document involves logging in previously pristine areas, extensive additional road construction, logging camp and

log dump refurbishing, and other new intensive logging-related developments. Indeed, the Forest Service has so constrained itself in Phase I that it claims it must log heavily in key subsistence use areas, and log Mud Bay and Trap Bay and finish the Kadashan Road -- thus violating the integrity of three areas which the U.S. House of Representatives voted overwhelmingly to protect as wilderness just one month ago.

Bifurcating the DSEIS analysis has not achieved its apparent intention. None of the Analysis Area documents presented in Phase II of the DSEIS process meets the National Environmental Policy Act (NEPA) requirements for a site-specific EIS. In the Kadashan case, City of Tenakee Springs and SEACC v. Block ("Tenakee I"), and the Game Creek case, City of Tenakee Springs v. Courtright ("Tenakee II"), the courts found that site-specific detail was lacking from the broadly-scoped five year operating plan for 1981-1986 operations. In the 1986-90 EIS, this problem was repeated. In particular, both EIS's failed to provide adequate information correlating environmental factors with alternative road and harvest configurations in each discrete area. The Phase II documents compound this flaw both by failing again to provide or correlate site-specific environmental information for each VCU with alternatives, and also by failing to provide a range of alternative harvest and road configurations for each VCU.

The information provided by the Phase II DSEIS regarding the resource values of each area is extremely limited, especially in the case of wildlife, fisheries and subsistence resources. The Phase II documents also completely fail to discuss the problems associated with location of individual clearcut units and roads in each VCU. This latter failure insures that the Phase II documents cannot suffice as final project level approval documents for NEPA purposes. Key decisions and information remain uncollected, unknown, and deferred to later field-level decisions which will not be subjected to a rigorous NEPA analysis.

A basic lack of field data hampers all planning efforts in the APC contract area. The Phase II DSEIS is no exception. The graphs and tables in the DSEIS are not site-specific and cannot substitute for actual descriptive information on the site-specific attributes of each VCU and the expected impacts on those areas resulting from the proposed action. The wildlife, fisheries, subsistence, recreation and cultural resource descriptions in each Phase II volume are hopelessly general, limited to broad statements unrelated to the unique attributes of each VCU. Little or no actual data is presented about wildlife populations and human use (such as subsistence), or the sensitivity of these values to logging-related impacts. Extrapolations based on unstated assumptions take the place of resource assessments. Field reconnaissance, according to the cultural resource assessment, for example, was not done because it was considered to be expensive and impractical. However, the applicable statutes require the gathering of sufficient field data in order to make informed decisions. NEPA, for example, specifically provides that where important information on impacts is missing or incomplete, the Forest Service must gather that information.

If the agency establishes that the costs of acquiring the information are exorbitant, then it must still forecast potential adverse impacts. Since this supplement augments EISs which were commenced before May 27, 1986, a worst case analysis must be prepared. For EISs commenced after this date, a forecast of reasonably foreseeable significant adverse impacts must be completed. 40 C.F.R. § 1502.22. In this SEIS the Forest Service has neither attempted to gather missing information, nor prepared the required worst case analysis.

The wildlife and fisheries assessments also suffer greatly in that they ignore the well-stated criticisms of other experts. Though NEPA requires presentation of and response to the opposing viewpoints of experts, the extensive comments made previously by the Wildlife Society and the

Alaska Department of Fish and Game have not been responded to by the Forest Service experts whose opinions were challenged.

234-1 For example, the Forest Service has yet to respond to serious criticisms of its use of wildlife impacts modeling to take the place of actual field data and observations. While wildlife impact models can sometimes be a useful tool, the Wildlife Society and the Alaska Department of Fish and Game (ADF&G) have repeatedly questioned the assumptions upon which the Forest Service models are based. Deer winter range definitions employed in the 1986-90 EIS models did not accurately reflect the criteria generally accepted in the field of wildlife biology. Portions of this old definition remain in the Phase II DSEIS and are displayed alongside data derived using an updated definition. At best, the result is confusion; at worst the public is being misled by the presentation of inaccurate data that tends to paint too rosy a picture of the potential impacts.

234-2 Even the newer wildlife impacts models are used poorly. Most of the best data is buried in tables which lack accompanying explanatory narrative or contextual background. The models are not uniformly applied in the Phase II DSEIS volumes, either. Most notably, the AA-6 document avoids modeling impacts to brown bear, even though it proposes extensive logging and roading and logging camp occupancy in prime bear habitat --including Kadashan.

At any rate, models alone cannot suffice to describe the site-specific impacts of the various alternatives presented. Actual field data is required to accurately assess these impacts. NEPA requires the Forest Service to obtain and present this critical data, without which full disclosure of impacts is impossible.

234-3 Another similar failure to respond to and present the opposing views of experts can be seen in the Phase II DSEIS sections discussing impacts to fisheries resources. In stark contrast to the Ketchikan Pulp Company 1989-94 Operating Plan EIS, the DSEIS completely fails to discuss the National Marine Fisheries Service (NMFS) policy statement on riparian habitat management -- a policy that contradicts the Forest Service's assumptions about the desirability of partial logging along streambanks. The Forest Service should propose to adopt this management strategy fully in at least one of its alternatives in order to protect fisheries. Furthermore, the DSEIS must explain the differences between the Forest Service's habitat management prescriptions and the NMFS policy, and explain which provides more effective riparian habitat protection.

234-4 As with the wildlife impacts analysis, actual data on fisheries resources cannot be found in the DSEIS, either on an area-wide basis or for individual VCUs. It is impossible to assess the impacts of the various alternatives without even having individual stream survey information available to describe the site-specific conditions in each area which would be affected to a lesser or greater degree by alternative field layouts for various roads and clearcut units.

234-5 The appendices to the Phase II DSEIS volumes do include so-called "Unit Cards" which purport to adjust clearcut unit locations. A close examination of these cards, however, reveals that they are only draft cards, not yet checked in the field, and which contain little or no site-specific data. Moreover, the completion of these unit cards and changes to the clearcut layouts which occur after the conclusion of this NEPA review cannot suffice to replace the pre-decisional analyses required at this stage in the EIS process. These are problems that the plaintiffs in the Tenakee Springs II case pointed out in their court papers, and the Forest Service still has done nothing to correct the deficiencies.

234-6 The lack of site-specific data is also a major deficiency of the subsistence impact analyses in the various volumes of the Phase II DSEIS. Nothing in these analyses attempts to quantify human use of the various VCUs involved, the relative importance of each area for each community, the site-specific impacts and effects on these uses that can be expected from the various alternatives, and the long-term prognosis for continued availability and use of subsistence

234-6 resources in each VCU. There is not even mapping of affected subsistence use areas presented. Moreover, the SEIS's conclusions that subsistence use would not be affected are consistently unsupported. Indeed, the lack of baseline information renders the entire subsistence analysis more like a programmatic study than a project approval-level analysis. This does not answer the concerns of the subsistence users who are members of the plaintiffs' organizations and does not meet the mandates of Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA) or NEPA.

234-7 Key baseline data is also missing in the recreation use impacts analyses. The discussion of benefits of changes from primitive to "roaded recreation" in each VCU does not answer the greater question of what demand exists for such developed recreation uses or what the negative impacts on other types of recreational use will be. We believe demand for new roads in the APC area for recreation purposes is virtually non-existent. There are already more than enough roads to meet the demand for such recreation. The Forest Service ignores the fact in the DSEIS that its roadbuilding program will displace many recreationists who currently enjoy the primitive nature of some rapidly shrinking roadless parts of the APC contract area.

234-8 The greater issue of the primary and secondary impacts of road systems, and their use, on wildlife, fisheries, subsistence and other resources has long been a Forest Service blind spot. Unable, or unwilling, to acknowledge the disfavor of many bush residents for new roads, the DSEIS does not disclose the impacts of alternative road or logging camp locations in each VCU adequately. In particular, the DSEIS does not adequately address the impacts from erosion and mass wasting, noise and disturbance, or increased and different kinds of use (i.e., non-resident hunters) which results from constructing roads into previously inaccessible places.

234-9 One of the most glaring deficiencies in the DSEIS is its failure to discuss site-specific mitigation tailored to various alternatives and local conditions. In each VCU, and in fact for each clearcut unit, different mitigation or monitoring methods may be useful, but the DSEIS treats them all generically, without paying any real attention to the site-specific differences so essential to effective mitigation. A general reference to "Best Management Practices" or "Aquatic Habitat Management Units" does not assure that such methods will be applied appropriately on a site-specific basis, or applied effectively. Previous studies by the Alaska Department of Fish and Game document that many of the general mitigation measures mentioned in the DSEIS are ineffective, inconsistently applied, and incorrect in their basic assumptions. These studies are not even discussed in the DSEIS. The DSEIS analysis stops short with the assumption that general mitigation measures will obviate any impacts. No disclosure is made about the impacts if mitigation is not successful on a site-specific basis.

Because of these and other failures, it appears that a number of laws will be violated by implementation of the action alternatives identified in the Phase II DSEIS volumes, including NEPA, ANILCA, the Clean Water Act and state water quality (for example, standards for sediment and turbidity, and anti-degradation requirements) and fish habitat protection laws and regulations, and the National Historic Preservation Act (NHPA). These potential violations must be disclosed and those violations must be corrected in the final SEIS.

234-10 The very real likelihood that Congress may soon step in to change the situation on the Tongass with legislation is all but ignored. An alternative which embodies the legislation which recently passed the U.S. House of Representatives should at least be considered as a reasonable alternative at this stage. The Forest Service's continued adherence to constraints which the courts in Tenakee Springs I and II have held do not tie its hands in the NEPA process sets the situation up for further litigation which might be avoided if the Forest Service would look again at its multiple use mandate and consider alternatives beyond the timber harvest locations preferred by APC.

234-11 Finally, the Phase II DSEIS, even when viewed in the most charitable light, is a poorly organized, haphazard document so badly drafted as to be essentially unreadable. It relegates important information which should appear in the body of the DSEIS to "planning record" tables in the myriad appendices or to consideration in future plans.

In summary, the Phase II DSEIS continues down the road to disaster that was mapped by Phase I. The Forest Service has not responded to the previously expressed public concerns in any meaningful way and we request that both our Phase I and Phase II comments be responded to in the Final SEIS.

234-13 We continue to oppose any logging in any area either under consideration by Congress as a potential addition to the wilderness system or which is roadless at the current time. We continue to oppose additional logging in high-value subsistence or recreation use areas, particularly those which have not yet sustained substantial roading or logging. We continue to support only those alternatives which meet APC's reasonable timber supply needs, considering actual historical use and past reliance on alternative sources, while protecting all the other needs of the public. We believe that an alternative which obtains all of APC's timber needs from the existing road system should be considered in detail in the DSEIS. The page-specific comments which follow elaborate on these general comments and concentrate on the AA-2 document. Most of the comments, however, apply equally to other volumes of the Phase II DSEIS, so that comments given for other volumes are in addition to and incorporate these general comments and the AA-2 comments.

PAGE-SPECIFIC COMMENTS DSEIS II ANALYSIS AREA 2

p.iii, Abstract

234-12 It defies logic to state that harvest of up to 3,448 acres in this area, as well as any reasonably foreseeable future harvest which will be facilitated by initial logging entries authorized here, "would have no impact or minimal impacts" on the environment. The NEPA threshold for significant impact is far less than this level. See, e.g., Tenakee II at 8. Similarly, to state that none of the alternatives will restrict subsistence use also ignores the facts. This area is heavily used for subsistence by residents of Hoonah, Elfin Cove, Gustavus and Pelican. The SEIS should consider the available information regarding subsistence dependence and uses in this area and must make the findings regarding the significance of the restrictions required by ANILCA Title VIII.

pp.v-viii, Summary

We note, as we did in our previous comments, that contractual commitments are not a constraint on the consideration of alternatives (See Hanlon v. Barton, at 25-28), but this SEIS continues to proceed from the faulty premise that the alternatives are limited to those which meet APC's contract terms.

Ch.1, p.1

This document not only builds on, but must also correct, the deficiencies in the previous EIS's. Tiering and supplementation serve different purposes; treating these methodologies as equivalent misleads the reader into believing this effort represents "finish work" rather than remodeling and repair work.

Ch.1, pp.11-12

- 234-10 The background information should discuss the ongoing administrative appeals challenging the 1986-1990 FEIS. The background section also does not adequately discuss H.R. 987 and S. 346 -- the proposed Tongass reform legislation. H.R. 987 passed the House of Representatives on July 13, 1989, by a vote of 356-60. This bill would protect portions of AA-2, particularly Mud Bay/Point Adolphus, as ANILCA wilderness. It appears short-sighted to wait to "respond to any new legislation at the time of its passage," as the DSEIS II explains current Forest Service policy. Given the long lead time for completing this SEIS process, and the conflicts between Alternatives 2 and 3 and H.R. 987 (or S.346), we would recommend that the AA-2 alternatives be reformulated to recognize that Congressional removal of Mud Bay from the timber base is a reasonably likely scenario.

Ch.1, p.12

- 234-9 AA-2 contains 250,000 acres and 13 VCU's. This area far exceeds any manageable planning unit and does not allow for site-specific analysis of baseline data, impacts of alternatives, or mitigation. This document (and the other AA volumes) repeat many of the errors in their site-specific analyses of impacts that the plaintiffs in the Tenakee Springs II case identified, and should be rewritten to correct those deficiencies.

Ch.1, p.14

The concept that the DEIS II "must be responsive to " ANILCA's "target" of 4.5 billion board feet per decade harkens back to arguments discredited in Tenakee I and Tenakee II; Sierra Club v. Blackwell, J85-015CIV, D.Alaska; (Memorandum and Order, August 26, 1985); and years of Congressional testimony. The Forest Service itself has rejected a mandatory interpretation of ANILCA section 705, as has Congress, by programming and budgeting varying timber harvest levels since 1986.

Ch.1, pp.14-15, Purpose and Need

- 234-13 This action does not require the Forest Service to meet APC's contract terms. Such constraints are not required by law. Moreover, the DSEIS provides no basis for determining a reasonable range of APC's actual timber needs over the period in question, thus failing to adequately consider perhaps the most relevant factor in determining what action to take.

Ch.1, pp.15-16, Public Involvement

- 234-14 This document fails to consider the extensive comments made on the Phase I DSEIS. This issue is addressed in greater detail in the general comments section, supra. The final SEIS must respond to all the concerns raised by the public with regard to both phases of the SEIS process.

Ch.1, p.18, Administrative Appeals

- 234-15 Issues raised in the pending administrative appeals deserve full and detailed consideration in the SEIS, but do not receive such consideration. On the contrary, the Forest Service continues, at its peril, to ignore most of the salient issues, particularly the continuing lack of site-specific detail, the narrow range of alternatives examined, and the quality of environmental data and analysis employed. The criticisms of the prior EISs raised in those appeals apply equally to the SEIS and the plaintiffs therefore incorporate those points in their comments here.

Ch.1, p.19, Issues Outside Scope

- 234-14 This section continues to ignore the issue of whether APC's contractual terms may limit the selection of alternatives. This critical issue cannot be dismissed as outside the scope of the impact statement. Alternatives should be considered which are not dictated by the contractual quotas.

Ch.2, p.2

Formulation of alternatives that meet certain resource goals or comply with relevant laws is reasonable, but constraining the alternatives exclusively to meet APC's contract terms is not reasonable, especially in light of the changes proposed in Congress at the present time.

Ch.2, p.2-3, Alternatives Eliminated

- 234-16 The Forest Service improperly eliminates alternatives on the grounds that they could not be considered due to extensive road construction needs...However, at the same time the preferred alternative schedules extensive new operations in areas previously unroaded and unlogged. Neither the phase I or Phase II documents addresses this inconsistency, which worked to eliminate vast roaded areas, in Rodman Bay for example, from detailed consideration. Alternatives should be considered which obtain the timber needed for APC's operations from existing roaded areas as much as possible, rather than relying on entering major new areas as the only option for providing timber for the remainder of the 1986-90 operating period.

Ch.2, p.3, Alternatives Evaluated

- 234-11 Again, the improperly narrowed parameters from the Phase I DSEIS fatally flaw the Phase II SEIS's consideration of other resource values. Targeting AA-2 for an artificially high amount of timber in advance of an adequate site-specific analysis precluded consideration of a sufficiently broad range of alternatives or adequate protection of other resource uses.

Ch.2, pp.4-5, Alternative 1

- 234-17 Nothing in this EIS supports the assertion that failing to log in AA-2 would "have a high
234-18 probability of causing the Forest Service...to breach APC contractual obligations..." As we have mentioned previously, large volumes of timber are available within APC's contract area in previously roaded VCU's; there is no reason that large new areas have to be entered in order to provide sufficient timber for the remainder of the 1986-90 operating period.

Ch.2, p.7, Maps

- 234-19 As with every volume of the Phase II DSEIS, the failure to number units on maps makes meaningful review impossible. This defect cannot be adequately compensated for by belated circulation of an errata sheet. The maps should be reprinted correctly and recirculated before the end of public comment.

- 234-20 All volumes of the Phase II DSEIS also fail to identify each alternative adequately. It is difficult to correlate the maps to the alternatives. Further, throughout the Phase II DSEIS the identification of old growth retention areas on maps perpetuates the erroneous impression that such areas are sacrosanct or were selected by some generally accepted or approved scientific criteria. Neither of these impressions is correct, as the ADF&G comments make clear.

Ch.2, p.8

- 234-21 These Phase II DSEIS maps all fail to show harvest on adjacent private lands, thus omitting important information about cumulative impacts. All adjacent harvest units on private, state and federal land, regardless of planning status, must be displayed on the maps and specifically described and discussed in the text in order to adequately disclose the full cumulative impacts.

Ch.2, p.16

- 234-22 The table (2-1) could provide some useful information, but it is unusable due to the omission of clearcut unit numbers.

Ch.2, p.17

- 234-23 How is Alternative 3 an alternative that "continues the theme of wildlife emphasis"? It harvests over 3,000 acres of important old-growth forest wildlife habitat. This alternative can only be honestly labeled as timber emphasis or the Forest Service needs to better explain its criteria for determining the range of alternatives and how it arrives at a conclusion that a particular alternative is a "wildlife" alternative.

Ch.2, p.17, Table 2-2

- 234-24 Inclusion of another table showing actual completion of units with alternative logging systems in the 1981-86 and 1986-90 plans would be helpful. It is our understanding that APC has not in the past and does not intend to conduct skyline, helicopter, balloon or other alternative logging methods. If the DSEIS does not actually commit to certain logging systems in identified units, such decisions should trigger a subsequent tier of NEPA review at the project-specific level.

Ch.2, p.21, Maps

- 234-25 What is the environmental change associated with authorizing harvest in areas previously reserved as old-growth habitat? The SEIS must address these consequences, yet the text of the document is silent on this subject.

Ch.2, p.22

- 234-26 The proposal of a cost-share cooperative logging agreement with Sealaska in Alternative 3 must be accompanied with a discussion of the additional or cumulative effects of the clearcutting that this agreement will facilitate.

Ch.2, pp.1-27

- 234-27 The alternatives presented do not adequately disclose which areas were actually proposed for harvest in 1981-86, 1986-90 and by the Phase II DSEIS. Nor do the maps identify carryover timber remaining unharvested as of the date of the supplement. The Forest Service was admonished not to treat carryover units as a fait accompli in the Hanlon case, for purposes of subsequent NEPA review, yet the error appears to be repeated here.

Ch.2, pp.27-31

- 234-28 The tabular comparison presented here is so general as to be programmatic, rather than site-specific, in nature. This cannot in any way be construed as an adequate comparison of site-specific alternatives. No correlation is presented between the resource values and impacts in

particular VCU's, no reference is made to site-specific impacts, no site-specific data is referred to by the analysis.

Ch.2, p.32

- 234-29 The conclusions that selection of Alternatives 1 or 2 would result in job loss or contractual breach are unsubstantiated without an analysis of the total available timber in the contract area, the supply available along existing roads, alternative off-the-contract-area supplies, and the nature of any potential breach claims. We are concerned that despite our very specific comments to the DSEIS (Phase I) which addressed this problem, nothing has been done to either remedy or address it in the Phase II document.

Ch.2, pp.33-35

- 234-30 This data, including the tables, requires an explanation of underlying assumptions. Nowhere is the model explained in the SEIS document, rendering it an act of faith to accept the reported numbers. ADF&G has commented at length on this point and we incorporate that agency's comments. Moreover, the public has a legal right to review the methodology and assumptions behind an EIS in addition to the bare ultimate conclusions. NEPA requires not only a full explanation of the methodology, but also a response to the criticisms of other experts, such as ADF&G. The opposing viewpoints, expressed in numerous comments and meetings, must be discussed and a response provided.

- 234-31 Even more importantly, the tables showing cumulative reductions in habitat capability over the entire Analysis Area do not meet NEPA's site-specific requirements. For example, the reduction of 4.4% in deer habitat over the entire AA-2 (as displayed in Table 2-6) will not be geographically uniform, nor will the impact be such. Some areas are much more important than others for deer habitat, and local reductions in the heavily used coastal areas will be far more significant in terms of impacts on the environment.

Ch.2, p.35

- 234-32 This table, like many tables in the DSEIS documents, fails to explain the origins of its data and its assumptions and is thus rendered useless to meet NEPA's standards.

Ch.2, p.38

- 234-33 Subsistence use of AA-2 comes from at least Hoonah, Elfin Cove, Gustavus and Pelican. Nothing in the DSEIS supports the conclusion that subsistence use of AA-2 will not be impacted by logging nearly 3,500 acres and building over 30 miles of road. The Phase II DSEIS clearly fails to satisfy ANILCA §810's exacting requirements for analysis and action taking into account subsistence resources and uses.

Ch.2, pp.40-41

- 234-34 Lack of discussion of non-timber employment (e.g., tourism, guiding, fishing) impacts in Table 2-9 ignores users of the Tongass who do not work in the timber industry. Unless the Forest Service can demonstrate with reasonable certainty that no job loss in these other industries will result from logging AA-2 as proposed, it must display such possible economic impacts, according to the requirements of NEPA.

Ch.2, p.42

- 234-35 The rationale for the proposed logging of Mud Bay and Point Adolphus in order to avoid a contract breach or job loss is a direct result of the impermissably narrow range of alternatives

- 234-35
Cont. considered in the DSEIS. Timber is available along the roaded areas in Eight Fathom Bight and Neka River to provide a reasonable timber volume without any logging in Mud Bay. Unfortunately, the "fixed menu" presented at the outset of the SEIS process needlessly precluded meeting timber availability goals while still protecting the last block of pristine wildlife habitat near Hoonah. An alternative should be considered which obtains the timber from this area from already roaded sections.

Ch.2, p.43

- 234-36 The "trade-off" which results in selection of Alternative 3 appears to be a trade-off of wildlife and fish habitat, subsistence, recreation and tourism values for the benefit of APC and its contractors. The basis for this decision should be explained in more detail in the DSEIS and the assumptions on which it is based revealed.

Ch.3, pp.1-2

- 234-37 We disagree with the Forest Service's position that this EIS, which covers 250,000 acres and dozens of VCU's, accomplishes an adequate site-specific analysis. While such a task may not be utterly impossible, as our comments point out, with respect to numerous issues it certainly cannot be and has not been achieved in this volume or any of the other three AA documents. Data gaps have not been filled in by generic statements, and the information has simply not been presented in this DSEIS to constitute a site-specific analysis.

Ch.3, pp.2-3

- 234-38 Though slope failures and landslides are common in Southeast Alaska (according to the DSEIS there have been 3,800 in 150 years), the DSEIS fails to quantify the relative landslide risk presented by proposed roadbuilding and logging on severe, high or moderate risk slopes, or to correlate the location, by VCU, of such slopes to past, present and reasonably foreseeable future logging plans in each VCU.

Ch.3, pp.3-6

- 234-38 The drainage-specific soil data should be accompanied by maps and should be related to specific clearcut unit locations under each alternative clearcut scenario in the DSEIS. Similar kinds of data should also be included for other resource values, not just soils. A narrative description of particular stream characteristics, fish, deer, bear, furbearer and eagle resources and habitat, subsistence and recreation uses and opportunities and cultural/historical resources should be included for each VCU analyzed in the Phase II DSEIS volumes. Soils are not the only important resource, nor are the timber, wildlife, fish, subsistence, or recreation resources homogenous across the contract area, as the existing analysis appears to assume.

Ch.3, pp.12-15

- 234-39 This analysis presumes that the environmental impact of unit deletions and modifications of clearcut units can be analyzed by comparing acres, essentially treating each acre as interchangeable with any other. However, timber volume, habitat capability for different species, human use and other highly relevant factors vary from place to place. Failing to assess the actual impact of the changes and relying on an invalid assumption of a homogeneous forest does not meet the requirements of NEPA. These changes need to be addressed on a unit-by-unit basis. For instance, where units are altered because of low volume or expensive access, impacts on other resource values or habitats may increase, rather than decrease. Without compiling more specific data from previous unit cards regarding the effects of changes in unit location and configuration, there is no basis for the conclusions presented here.

Ch.3, p.15

- 234-40 The discussion of roads should discuss potential human use of these roads, which is the major impact associated with access.

Ch.3, pp.17-20

- 234-41 The Phase II DSEIS generally fails to provide any narrative or site-specific table describing the impacts associated with proposed logging in each VCU. Listing in tabular form the aggregate acres of habitat in each VCU does not provide a sufficient basis for comparison of habitat values. No two acres are alike. A relative quantification of resources values by VCU (as was done with the soil data), should be provided, as well as a VCU-by-VCU impacts analysis for each alternative considered.

Ch.3, pp.47-48

- 234-42 The description of the types and amounts of recreational uses is deficient. Past, present, and potential future use should be described on a VCU-by-VCU narrative basis, like the presentation of soils data. The Forest Service should make use of the Recreation Visitor Day (RVD) survey data maintained by the Forest Service for the Tongass, as well as information compiled by the Alaska State Division of Tourism for this purpose.

Ch.3, pp.53-54

- 234-43 The DSEIS fails to provide site-specific cultural resource data and also confirms that surveys remain incomplete for the bulk of AA-2. This violation of NEPA and the National Historic Preservation Act (which was raised in the SEACC appeal of the 1986-90 plan and also challenged in court by plaintiffs in Sierra Club v. Blackwell) is carried over from previous EIS's and has yet to be corrected.

Ch.3, pp.72-76

- 234-44 Hoonah is not the only community impacted by activities in AA-2. Residents of Elfin Cove, Gustavus and Pelican are all affected by activities in AA-2. Nor does the data presented address the relative importance of each VCU for subsistence, commercial fishing, guiding, and other important uses by each of these communities. In particular, the Forest Service should consider the available studies of subsistence resources and uses by these communities which have been prepared by the ADF&G.

Ch.4, p.2

- 234-45 The discussion of soil impacts is woefully incomplete. There is no site-specific data correlating slope failure risk areas to proposed clearcut units. Without this basic information it is impossible to determine what the soils impacts of each alternative actually will be.

Ch.4, pp.6-21

- 234-46 The wildlife impacts section fails entirely to differentiate between the site-specific values of particular VCU's for each indicator species. This would be understandable in a programmatic EIS, but cannot meet NEPA site-specificity requirements for a project-level approval document. Not one single VCU is assessed in detail in this analysis. Aggregated raw acreage figures are substituted as if they convey a meaningful impact analysis, but they do not. ADF&G and other

wildlife experts have repeatedly pointed out the error of treating all forested acres equally in ranking their wildlife habitat importance. This deficiency remains a problem in the Phase II DSEIS, however.

In addition, the tables calculating deer habitat or population loss appear without any explanatory supporting information. They cannot be meaningfully evaluated in this form. Also, a brown bear impacts analysis is needed here. None was provided in this volume, although it was included in the AA-3 document. The discrepancy is inexplicable.

Ch.4, pp.22-24

- 234-47 There is no scientific or factual basis for the conclusory statement that timber harvest impacts "should be minimized or eliminated" by application of Forest Service Management prescriptions for riparian habitat. Instead, just the opposite may be the case, based on the recent National Marine Fisheries (NMFS) policy statement which states that minimum buffers of 100 feet on each of anadromous fish streams are required to protect fish habitat. Forest Service prescriptions are much less than that; consequently it cannot be asserted -- without contrary evidence refuting the expert opinion of NMFS -- that application of the Forest Service standard will be sufficient. Moreover, NEPA requires a thorough examination of potential impacts, not conclusory assurances of little or no impact. Without discussing the NMFS policy and refuting its scientific conclusions, as well as presenting information discussing potential impacts if NMFS is correct, the Phase II DSEIS is inadequate in this regard. This deficiency appears in the fisheries analysis sections of each volume of the DSEIS. Each fails to justify its conclusions with hard data proving that fish habitat protection will be assured and mitigation measures will be implemented, enforced, and effective.

- 234-48 The AA-2 volume, along with the other Phase II DSEIS volumes, also fails to describe the site-specific conditions (including pre-existing impacts from past logging and roading) in each VCU, the site-specific stream qualities which may require alteration of clearcut unit layout in order to meet habitat protection objectives in each VCU, the potential site-specific impacts of alternative unit layouts on fisheries in each VCU, the potential for slope failures and other habitat damaging events in each VCU by alternative, and other significant information which describes the potential site-specific fisheries impacts of actions considered or proposed in AA-2.

Ch.4, pp.24-26

- 234-49 The discussion of streamflow impacts fails to describe potential site-specific effects in each VCU, does not discuss the reasonably predictable site-specific impacts if the assertions of decreased water production in second-growth forest prove correct, and does not describe the potential effect of different site-specific alternatives on streamflows in each VCU. Again, this flaw is repeated throughout the other Phase II DSEIS volumes.

Ch.4, pp.26-27

- 234-50 Nothing in this section describes the potential site-specific impacts from sedimentation under each alternative, even though the Phase II DSEIS acknowledges the lack of scientific certainty on this critical issue. If this information is truly unavailable, it may be necessary for the Forest Service to prepare a "worst case" analysis under the prior NEPA regulations, or at least assess the "reasonably foreseeable significant adverse impacts" in conformance with the revised NEPA regulations which replace the old "worst case" analysis requirements. This flaw is repeated in the other Phase II DSEIS volumes.

Ch.4, pp.27-29

Discussion of land status seems to be one of few places where any site-specific narrative relates location of cutting units to potential impacts (if only on private inholders). This type of information must be included for all resources, not just private land interests.

Ch.4, pp.29-31

234-51 Comparing changes in recreational opportunities available in each VCU as a predictor of impacts does not suffice to cover potential impacts because it leaves out consideration of actual existing and projected use of each area. Without some information as to existing types and levels of recreational use, changes cannot be measured against a baseline. The Phase II DSEIS fails to provide this critical information. For example, converting currently pristine areas like Point Adolphus and Mud Bay to clearcut zones will undoubtedly displace important existing primitive recreational and tourism uses. Mud Bay/Point Adolphus apparently has enough of such values to be considered by Congress for permanent wilderness designation, mostly on the strength of wildlife concentrations and opportunities for solitude. The considerable existing use of this area by whale-watching tourists and local residents is not even mentioned, nor is the impact of proposed clear-cutting related to this currently existing or projected future use.

Ch.4, pp.32-34

234-43 The Forest Service has never adequately inventoried, surveyed, catalogued, or protected the wealth of cultural and historic artifacts in the APC contract area. We have pointed this failure out at length in previous appeals and lawsuits, yet the only response in the Phase II DSEIS is to conclude, once again, that the Forest Service will not survey each alternative because "it would be costly and impractical." Under the NHPA, those criteria do not support a waiver of the legal duty to fully protect cultural resources. Nor can the Forest Service escape the duty, under NEPA, to either gather this needed information, unless the costs are exorbitant, or disclose now the reasonably foreseeable significant impacts that can be expected from logging these areas without cultural resource surveys. Part of such an analysis should include a discussion of the past efficacy of Forest Service cultural resource protection measures. By substituting a promise of future research to assess the cultural resources of each area before allowing logging, the DSEIS totally fails to meet NEPA's site-specificity requirements for assessment of cultural impacts or NHPA's mandate of full protection of cultural resources.

Ch.4, pp.39-41

234-52 The subsistence impacts analysis cannot be considered complete without site-specific information on the human use of each VCU proposed for logging and the site-specific impact on such use of each alternative. The failure of the DSEIS to provide such basic baseline data directly violates the recent court rulings interpreting §810 of ANILCA in Hanlon v. Barton.

Ch.4, p.47

234-53 The failure to consider direct and indirect impacts caused by increased road access in the long-term impacts analysis renders it inadequate. Impacts to wildlife, fisheries, recreation, subsistence, historical and cultural resources from an ever expanding linked network of roads to serve clear-cutting activities are substantial and cannot be left out of this section of the Phase II DSEIS analysis.

Ch.4, pp.50-53

- 234-54 This analysis is not site-specific. The assumptions and methodologies employed in the models are not explained anywhere in the Phase II DSEIS. This analysis fails to meet NEPA's requirements for disclosure of site-specific impacts of the alternatives on wildlife resources.

Ch.4, pp.54-57

- 234-55 This analysis also fails to disclose potential site-specific impacts in any meaningful manner. It does not satisfy the NEPA mandate to simply assume, based on little or no scientific data, that an action will not have any long-term impacts. Nor does it suffice to rely on untested mitigation measures to reach conclusions of little or no potential impact. By failing to describe the site-specific fisheries impacts of harvesting major amounts of each project area VCU, the DSEIS fails as a "full disclosure" document under NEPA.

Ch.4, pp.57-59

- 234-56 This analysis does not discuss the projected recreation uses for the affected VCU's expected by the year 2011. No analysis of long term impacts can be considered complete without this baseline data, however.

Ch.4, pp.62

- 234-57 The cultural resource impacts "assessment" is not site-specific, nor does it even attempt to assess impacts, since it candidly admits the Forest Service has no information on this subject. This does not satisfy the NHPA and NEPA requirements discussed above.

Ch.4, pp.63-65

- 234-58 The Phase II DSEIS fails to address one of the central questions raised successfully by the plaintiffs in Hanlon v. Barton, i.e., the long-term and cumulative impacts of roadbuilding and logging on subsistence resources and uses of the affected forest lands. The AA-2 volume does not provide any information about past, present, or future subsistence uses of each VCU. It does not provide an evaluation of the potential long-term impacts of proposed logging and roading on those resources and uses. It fails to present a draft of the findings required by ANILCA § 810(a)(3) for public review. Promises to address these impacts in future documents are totally inconsistent with the NEPA mandate to disclose impacts fully at the earliest possible time (and before a decision is made to commit the resources), as the court found in Hanlon v. Barton. Yet the Phase II DSEIS impermissably continues to adhere to the arguments rejected in Hanlon, in defense of the Forest Service's refusal to fully disclose expected impacts.

Ch.4, p.66

- 234-59 The Forest Service's dependence on "unit card" analyses for site-specific project design, impact assessments and mitigation measures, which occur outside of the present NEPA process, and after its conclusion, violates NEPA. This critical information must be disclosed and discussed now, since the SEIS will be the final NEPA approval document for each individual clearcut and road. In the Tenakee Springs II case, the court found that site-specific project changes must be addressed in the 1981-1986 EIS. Notwithstanding that ruling, the entire Phase II DSEIS perpetuates this error by continuing to rely on the future preparation of unit cards in lieu of adequate site-specific analysis at the present time.

Ch.4, p.68-69

234-60 As noted in our comments above, discussions of possible site-specific mitigation measures cannot be pushed back to future unit card field analyses which are not subject to NEPA procedures. The analysis contained in the DSEIS fails to describe site-specific unit locations or the specific issues amenable to mitigation in each VCU, alternative means for achieving desired levels of resource protection, the effectiveness of the proposed methods, the impact of potential budget reductions on mitigation implementation and monitoring effectiveness, and other absolutely critical information. The lack of an adequate discussion of mitigation measures is a major failing in each volume of the Phase II DSEIS.

Appendix A-4

234-61 This appendix should contain the affidavits submitted by the plaintiffs in Hanlon v. Barton. To include only the affidavits submitted in the defendant's side of the case presents a skewed picture of the information which was before the court when it ruled in the plaintiffs' favor.

Appendix B-1

234-62 This appendix fails to respond adequately to the numerous detailed, substantive comments submitted on the Phase I DSEIS by the plaintiffs in the Tenakee Springs II case, as well as others. At the outset, the appendix does not demonstrate that additional sources of timber from outside APC's contract area cannot be substituted in order to construct different alternatives which still supply a reasonable timber supply for APC. Information on this subject was submitted by various parties in their earlier comments on the DSEIS and in the Tenakee Springs and in Hanlon v. Barton cases. None of that information has even been acknowledged in the Forest Service's response to comments. It should also be noted that responses to comments must be cross-referenced to individual comments in order to meet NEPA requirements.

The Forest Service's response to the concerns we raised about improper elimination of areas for consideration simply rehashes the inadequate analysis provided in the Phase I volume of the DSEIS. Critical questions remain unanswered, including the inconsistency of eliminating some previously roaded areas on the excuse of logistical considerations (e.g., Rodman Bay) while planning major new construction and operation in as yet unroaded other areas (e.g., Mud Bay, Trap Bay, Kadashan). Rodman Bay, with over 11,000 acres of standard harvestable CFL, could supply the bulk of APC's needs for the operation period of the supplement, obviating the need to enter more sensitive areas like Mud Bay, Trap Bay and Kadashan. No support or analysis is offered to justify the erroneous statement that two years is not enough time to gain log dump approval. The process for approval of such a facility, if needed, could have been initiated in conjunction with the preparation of this SEIS, which began two full years ago, and could still be initiated in time for the 1990 logging season. The False Bay log dump was approved this year in a process that began well after the Tenakee II ruling. The DSEIS has thus far failed to demonstrate the infeasibility of these alternatives and must therefore give them full and fair consideration.

234-63 On page 30 of Appendix B-1, the Phase II DSEIS notes that further analysis of the impacts of pending Congressional actions will be presented in the Phase II documents "in one or more alternatives." This section must have been written before the decision not to undertake such an analysis in the Phase II DSEIS. Be that as it may, the DSEIS does not consider the adoption of H.R.987 or S.346 as alternatives to the present action, and that omission renders the DSEIS inadequate. Both bills would terminate the APC contract and thus eliminate the purpose and need on which the DSEIS seems to rely to excuse its artificially narrow range of alternatives. Both bills also prohibit timber harvest activities in certain areas, including Mud Bay, Trap Bay and

- 234-63 Kadashan, which are proposed to be entered under the DSEIS. Enactment of either bill or some
Cont. combination could well occur in 1989. Consideration of these bills as alternatives to the proposed
action in the DSEIS is certainly within the reasonable range of alternatives at this point, and
would leave the Forest Service better prepared to deal with the consequences of legislative change,
if it should happen in the near future.

Appendix C-1

- 234-9/5 Inclusion in an Appendix in each volume of the Phase II DSEIS of a selection of the
incomplete unit cards cannot suffice to meet NEPA's site-specificity requirements. What
additional information these cards add to the analysis contained in the DSEIS volumes actually
illustrates just how deficient the DSEIS actually is in regard to the unique conditions which must
be considered in each VCU or within each unit. Why aren't alternative unit locations discussed
at this stage, for instance? No further NEPA disclosure will take place, but changes of major
potential significance may be authorized when the unit layout is completed -- after the SEIS is
approved. Indeed, statements of general concern expressed in the unit cards do more to show just
how little actual data has been gathered in on-the-ground analysis than to demonstrate responsible
planning. Apparently most of the sites where clearcuts and roads have been tentatively located
will only be field-checked when APC and the Forest Service reach the site with ongoing logging
operations. Complete ground surveys, site-specific mitigation measures tailored to actual locations
and conditions for each clearcut unit, and full disclosure of the impacts of various alternative
configurations for logging in each area must be provided.

Appendix C-2

- 234-64 The analysis in this appendix is incomplete without more information which could support
the conclusions given about the impact of changes in unit locations after the completion of the
1981-86 EIS. All completed unit cards, at a minimum, should be displayed, along with maps
showing the changes. A large number of these changes appear to have been designed to improve
the economics of harvesting. Since APC can reject, formally or informally, "uneconomic" units
(i.e., lower timber volume per acre), it would be logical to assume that post-EIS changes tend to
increase the average volume per acre of the units harvested. This would likely increase wildlife
impacts because the higher volume acreage tends to be higher in wildlife values as well. No
volume per acre change figures are given in this Appendix. This missing information is critical
to assessing the impact of the unit changes. Again, the Forest Service makes the mistake of
treating each Tongass acre as interchangeable with every other acre. This assumption is erroneous.
The appendix should also explain in more detail the data on which its conclusions regarding the
impacts of the changes is based.

Appendix C-4

- 234-65 The incomplete description of the wildlife model does not explain how it was used for
each specific VCU in the DSEIS, nor does it explain all the assumptions which went into the
analysis presented. Also missing is an assessment of the degree of certainty of the data employed
to arrive at the numbers presented. This explanation does not adequately support the conclusions
presented in the text. Key considerations escape explanation in the Suring, *et al.* narrative, such
as how or whether the model assesses the impact of road access, increased human presence,
increased noise, and changes in predation patterns from alterations in habitat.

**PAGE-SPECIFIC COMMENTS
ANALYSIS AREA 3**

These comments are supplemental to and incorporate the general comments we have provided above for the overall Phase II DSEIS and the comments given on the AA-2 document analysis above (which are also equally applicable to the AA-3, AA-6 and AA-12 documents).

Ch.1, p.16

- 234-66 The public involvement in this process has been legally inadequate, particularly with regard to compliance with the subsistence protection provisions of ANILCA §810. Because the public hearings for this DSEIS were held at a time when people could not be available, during fishing season and during the height of subsistence activities, they do not constitute a bona fide or meaningful opportunity to be informed and comment. Nor were hearing participants given adequate information on which to base their comments. We believe these hearings did not satisfy ANILCA's requirements.

Ch.2, pp.1-3

- 234-67 Our previous comments about the inadequate range of alternatives in the DSEIS also apply here. The APC contract should not be considered an inviolate constraint on planning, and alternatives which consider other options for a supply of timber, described in more detail above, should have been considered in the AA-3 document.

Ch.2, pp.14-16

- 234-68 The maps should display the False Bay log dump, which has been approved by the Forest Service and built by APC.

Ch.2, pp.22-28

- 234-69 It is difficult, if not impossible, to determine whether the "no further harvest" alternative is indeed what it claims to be, since none of the units are labeled by numbers or are otherwise identified as 1981-86 units, modified units from the 1/4/85 agreement, 1986-90 units, or new supplement units. Throughout the DSEIS, none of the carryover units are so identified.

Ch.2, pp.3-90

- 234-70 None of the alternatives displayed presents the option we suggested in comments to the Phase I DSEIS: harvest a sufficient amount of timber from existing road systems without entering new, unroaded VCU's. Each alternative presented here poses great potential threats to the subsistence, recreation, commercial fishing and other non-timber resources of the forest. Of particular concern are activities scheduled for VCU's 203, 204, 208, 209, 210, 211, 212, 213, 214, 217, 218 and 219. Logging and new roadbuilding in these areas should be either minimized or eliminated.

Ch.2, p.111

- 234-71 Again, the "trade-offs" which led to selection of Alternative 3 should be fully explained. What resources are being "traded-off" in favor of APC's contract?

Ch.3, pp.36-42

- 234-72 This brown bear analysis should have been performed for every Analysis Area -- not just AA-3.

Ch.3, pp.32-52

- 234-73 The wildlife and fisheries analyses are not site-specific. They should discuss in detail the relative habitat value of each VCU for the different indicator species. It is not sufficient to simply describe aggregate acreages.

Ch.3, pp.56-57

- 234-74 The recreation use description fails to quantify any of the current uses, either by VCU's or area-wide. Without this information the analysis is meaningless.

Ch.3, pp.86-95

- 234-75 This section provides far too little site-specific data on the relative value of each VCU for subsistence use by each community. Without knowing the pre-existing uses, it will not be possible to predict impacts to those uses that are the reasonably foreseeable consequences of the proposed actions.

Ch.4, p.16, Table 4-10

- 234-76 This table does not explain what "remaining" refers to, whether it means after 1990, after 1988, after 1961, or at the end of the contract. This error is repeated in many of the tables throughout the volumes of the Phase II DSEIS, as well as on p.19 and p.21 of the AA-3 document.

Ch.4, pp.28-29

- 234-77 The analysis does not acknowledge the severe impacts projected for a brown bear population already believed to be below minimum survivability levels. In certain VCU's the reductions are as high as 33% in the preferred alternative. These impacts must be assessed and mitigation measures should be prescribed on a site-specific basis.

Ch.4, p.34

- 234-78 Concluding little or no impact based on the minimal analysis presented here defies the facts. In reality, a 6-10% impact in just two seasons translates into an enormous impact since the first year of operations in 1961 and a potentially catastrophic impact from reasonably foreseeable future plans. This impact must be discussed and appropriate mitigation measures considered and applied.

Ch.4, p.65

- 234-79 The subsistence impacts analysis falls far short of the requirements of NEPA or ANILCA, failing as it does to quantify potential impacts by alternatives or to fully acknowledge the severe restrictions the additional activities scheduled here could impose on AA-3 subsistence use. Members of the plaintiff organizations depend heavily on AA-3 for subsistence resources. Their interests are not being protected.

Ch.4, p.78

234-80 The statements that impacts to brown bear are not expected to be substantial cannot be squared with the already demonstrated declines and with the AA-3 analysis showing a reduction to 40% of 1961 brown bear populations by the end of the APC contract. The statement that impacts are not substantial is factually incorrect and misleads the public reviewing the DSEIS.

**PAGE-SPECIFIC COMMENTS
ANALYSIS AREA 6**

Ch.2, pp.1-113

234-81 Given the failure to consider an alternative which concentrates harvest in areas already roaded and previously logged, as we have requested, we do not think it appropriate to endorse any particular alternative presented in the DSEIS.

Ch.2, p.94

234-82 Table 2-7 must be erroneous since it claims no deer winter range will be impacted even though 3,000 acres are proposed for logging.

Ch.3, pp.17-37

234-83 The wildlife and fisheries analysis of the affected environment lacks even rudimentary site-specificity. This is in stark contrast to the VCU-specific narratives in the soils analysis. The vague generalities of the wildlife and fisheries analyses should be replaced by VCU-specific data. A brown bear population model (like the deer model in Table 3-11) should also be included in the AA-6 document.

Ch.3, p.72-73

234-84 It does not meet the requirements of NEPA for site-specific project area descriptions to simply list VCU's used by Tenakee Springs residents for subsistence without quantifying the amount of use, relative importance, degree of interchangeability between subsistence use areas, and impact of past logging on those uses. The same flaw pervades the socio-economic analyses section of each volume of the Phase II DSEIS. The VCU's listed in Figure 3-18 (p.71) are of varying degrees of importance, though we advocate assuring maximum protection for non-timber values in each of them.

Ch.4, pp.1-18

234-85 As in every other volume of the Phase II DSEIS, the wildlife analysis here fails to describe the site-specific impacts of alternative logging plan layouts in each VCU. This is a dual failure of the formulation of alternatives, which does not vary within each VCU, and the failure of the Forest Service to gather sufficient site-specific field information with which to write an adequate narrative or complete an adequate impacts analysis.

234-86 These errors led to a complete lack of analysis of alternative road locations in Kadashan (VCU 235), for example. The central wildlife issue discussed in the Tenakee I lawsuit was the potential impact to brown bear populations from use of a road in Kadashan. Since partial completion of that road, Kadashan has suffered an alarming drop in bear population mostly due to human/bear conflicts -- a fact well known to Forest Service wildlife researchers. But Volume AA-6 of the Phase II DSEIS fails completely to discuss the impacts to bears of completing the

234-86 Kadashan Road, ways to mitigate that by alternative road locations or other means, and the
Cont. impacts of any resultant change on the human use of Kadashan. In Tenakee Springs I and Tenakee Springs II there was a failure to analyze alternative roads and clear-cut units specific to each VCU. This failure again appears, repeated throughout the Phase II DSEIS.

234-87 The "impacts analysis" provided for fisheries is also a prime example of just how little the Phase II DSEIS volumes actually describe specific potential wildlife or fisheries impacts. This section, like its counter-part section in the other DSEIS volumes, does not even attempt to rank alternatives or describe the impact of each alternative by VCU. Instead, it relies on generalities such as "The level of impact, if any, is dependent upon the application of Best Management Practices and Aquatic Habitat Management Prescriptions as presented in the Regional Guide." This is as far as the analysis goes: it leaves unanswered the questions of which alternatives minimize or maximize potential impacts, whether BMP's and AHMU prescriptions are effective, what alternative management prescriptions are available (i.e., the NMFS policy of 100 foot uncut streamside buffers), and which alternative unit design and layout for each VCU will best protect fisheries. The analysis cannot be considered complete without answers to these questions, but they are missing from every volume of the DSEIS.

Ch.4, pp.48-49

234-88 The subsistence impact of re-opening the Corner Bay logging camp is totally ignored in this analysis. Competition with present subsistence users is a very real concern for residents of this area. Similarly, the impact of re-opening of the False Island camp is glossed over with faulty reasoning, i.e., re-opening False Bay allegedly won't affect Angoon because hunters there do not suffer the effects of competition. Angoon's hunters have not suffered competition only because there have been no loggers at False Bay. The start-up of that camp will have subsistence impacts. This example shows how little attention the Phase II DSEIS pays to the impacts on subsistence from outside hunting competition aided by new roads and logging camps.

Ch.4, p.54

234-89 Like the long-term and cumulative effects analysis in every other volume of the Phase II DSEIS, this section fails to describe the site-specific long-term and cumulative impacts as required by the court in Tenakee Springs II. The roads analysis states that roads and camps will continue to operate, but says nothing about the long-term impact those changes may wreak on traditional subsistence resources and uses, wildlife populations, opportunities for recreation and wilderness tourism, and other non-timber values.

PAGE-SPECIFIC COMMENTS ANALYSIS AREA 12

Ch.2, pp.1-69

234-90 Again, the range of alternatives presented in this volume is too narrow. We previously suggested that ample timber supplies could be provided from the VCU's already roaded and logged on North Kuiu Island, particularly 399, 400, 402, 421, and 419. We have advocated avoiding new road construction in areas previously unroaded and unlogged, such as 416, 417, 418, and most of 420 (which is particularly important for Kake subsistence and for recreation use). The action alternatives do not present any of these options. Instead, every action alternative proposes harvest of large amounts of timber and requires new roading in some of the pristine VCU's. No single action alternative avoids all of them. The range of alternatives should be expanded to include at least one which proposes only the locations for harvest suggested above.

Ch.2, p.51

- 234-91 We question how Alternative 5 can have "the least impact on [deer winter range]," affecting only 307 acres, when it allows the logging of 2,965 acres. What possible definition of deer winter range could result in such a conclusion? The DSEIS leaves this question unanswered by failing to describe anywhere in the document the definition of Deer Winter Range it employs.

Ch.2, p.65

- 234-92 The section about Congressional action needs to be updated to reflect the content of H.R.987 and S.346.

Ch.3, pp.13-14

- 234-93 The net impact of project changes, adding 464 acres to total harvest since the 1981-86 EIS, indicates serious additional environmental impact. However, this analysis does not assess the impact in any way. The mere fact that most of these units were from wind-throw conditions does not indicate their harvest was environmentally benign. In fact, just the opposite could be expected, since most wind-throw happens at the edge of clearcuts and expands clearcut unit boundaries that were probably set based on environmental constraints. Yet there is no analysis of the changes in each unit that could confirm or deny this possibility. Much more information is needed to meet the requirements of NEPA, as explained in the Tenakee Springs II opinion.

Ch.3, pp.17-43

- 234-94 As with the other DSEIS volumes, the wildlife and fisheries analysis presented here does not include site-specific information necessary to meet NEPA requirements. Of particular concern is the lack of analysis of the impacts of previous logging as a contributing factor in the Kuiu Island deer population depression. Predation was a factor in many other areas that have fully recovered from the winter of 1974, but North Kuiu Island has sustained a massive habitat loss from previous logging which almost certainly contributes, to varying degrees in each VCU (since deer are not generally mobile in selection of home ranges), to the continued failure of Kuiu deer populations to rebound from severe winter conditions.

Ch.4, p.16-17

- 234-95 None of this analysis is adequately site-specific. There should be an assessment of potential impacts to black bear populations, along with the deer and marten impacts analyses. Also, it is unclear what assumptions and methodologies were employed to create Tables 4-12 and 4-13, or any of the other wildlife impact analyses in the Phase II DSEIS.

Ch.4, pp. 65-66

- 234-96 The subsistence impacts analysis cannot simply conclude that it is not known what the potential impacts would be; it must instead make some reasonable assumptions and attempt to predict the impacts based on those assumptions. Like the other long-term and cumulative impact analyses in the Phase II DSEIS, this one fails to address site-specific wildlife, fisheries, recreation or subsistence concerns.

CONCLUSION

After five years of litigation, administrative appeals, critical comments and numerous revisions of the environmental analysis, we find the Forest Service has made little progress in correcting basic flaws in the administration of APC's contract. This latest phase of the DSEIS continues a systematic failure to meet requirements of federal law. These volumes must be corrected and reissued for another round of public comments if we are to avoid further delays, disruptions and uncertainties in the management situation. It would be preferable to take the time to correct these deficiencies once and for all at this stage rather than to rush into yet another confrontation which must ultimately be resolved by the courts.

We appreciate the opportunity to provide our comments on this Phase II DSEIS document.

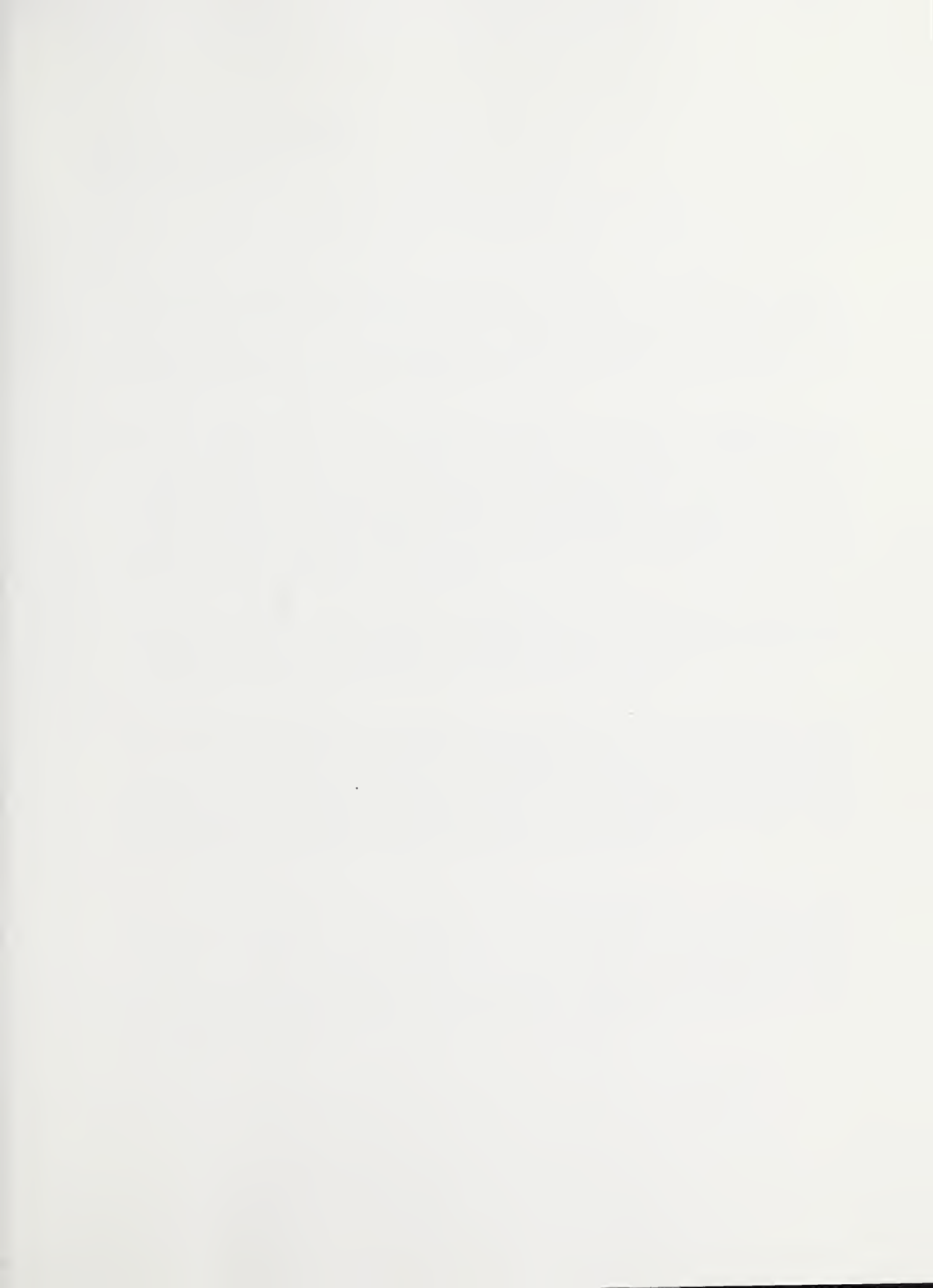
Yours truly,



Steven E. Kallick
Southeast Alaska Conservation Council



Lauri J. Adams
Sierra Club Legal Defense Fund





FOREST SERVICE RESPONSE

Alaska Legal Services

Letter 237

237-1

Your comment concerns timber harvest impact on subsistence. Most of the alternatives presented in the DSEIS either propose no harvest in any of the units deferred by *Hanlon v. Barton* (Alternatives 1, 2 and 6) or harvest in only a few of the sixteen deferred units (Alternatives 4 and 5). Alternative 3 does propose entering all of the deferred units, but we do not agree that these units are critical to subsistence use.

Within VCUs 208, 209, 210, and 212 there are 1500 acres of timber in Volume Classes 6 and 7 (Phase II DEIS, Chapter 3, page 13). The 89 acres in those volume class units deferred by *Hanlon v. Barton* represent approximately six percent of the total Class 6 and 7 volume available. Based on data contained in Table 4-17 of the Analysis Area 3 document, there would be a reduction of approximately 10 percent in the potential deer numbers in VCUs 208, 209, 210, and 212. Based on projected habitat capability, potential deer numbers would be reduced from 906 to 806 in the four VCUs.

Please also refer to Theme Response 5: Subsistence. Also see the map of important subsistence use areas now presented in the FSEIS as a result of the Subsistence Hearings and a request by the State of Alaska that TRUCS map data be displayed.

237-2

The Forest Service disagrees that previously presented data was not considered in this DSEIS. The subsistence sections of the DSEIS were prepared only after careful review of all the available data. Material cited in Appendix J of the Phase I SEIS was also used in the analysis of subsistence uses in the Phase II documents but was not re-cited. However, all remaining Phase I and Phase II DSEIS reference material is now cited in the FSEIS. Additional data is also displayed for the reader in Theme Response 5 and the FSEIS.

237-3

Forest Service responsibilities regarding evaluation of subsistence are set forth in ANILCA Section 810. In *Hanlon v. Barton*, while the Court recognized the agency's responsibility under Section 810 to evaluate subsistence before making land use decisions, it did not impose additional responsibilities other than those already existing under ANILCA Section 810. The assertion that the Forest Service has responsibility regarding subsistence above that specifically established by ANILCA Section 810 is incorrect.

Furthermore, the Forest Service disagrees that the subsistence analysis was cursory. A variety of studies and reports specific to the analysis areas covered, including the very extensive Tongass Resource Use Cooperative Survey (TRUCS), were used in conducting the subsistence analysis.

The reader is also referred to Theme Response 5 and the FSEIS text for additional information.

237-4

The Forest Services disagrees that it is necessary to assign monetary values to non-priced outputs such as subsistence and recreational opportunities. However, additional information is presented in the qualitative assessments of the costs of foregone opportunities and resources in the FSEIS. Additional information is also presented to clarify the role of the timber industry in enhancing community stability.

237-5

The Forest Service disagrees with the allegation that the decision of where and how much to log was based solely on economic concerns. All of the multiple resource values of the National Forest were considered in detail in the DSEIS. For example, data on and potential impacts to wildlife resources, which are a major concern in these areas, were presented on the following pages in Analysis Area 3 DSEIS; Chapter 1, pages 13, 14, 17, and 18, Chapter 2, pages 2, 60, 99-102, 104, 105, and 108-111, Chapter 3, pages 9, 14, 15, 19-47, 57, and 85-95, and Chapter 4, pages 12-34, 63, 65, 67, 68, 72-81, and 96-103. This is only one example of the concern given to non-economic resources and values. A similar analysis is presented for fisheries, watersheds, visual, recreation, and cultural resources.

The commentator may be confused about the requirements that ANILCA imposes on the Forest Service. The Forest Service's responsibilities under ANILCA are contained entirely in ANILCA Section 810. While Congress clearly demonstrated a desire to provide the opportunity for continued subsistence use, it did not elevate subsistence above other uses of the forest at all costs.

237-6

It is not the intention of the SEIS process to log "as many areas as possible". The Purpose and Need for these supplemental EISs is clearly stated in Chapter 1 of each document. Chapter 2 clearly provides for the analysis of a range of alternatives to meet the need stated in Chapter 1. Please also refer to Theme Response 6 for a clarification of this planning process.

237-7

Concerns about the timing of the hearings are discussed in Theme Response 1 on the public involvement process and in Theme Response 5 on the subsistence hearing process.

237-8

Chapter 2 of the DSEIS documents presents an evaluation of the alternatives based on information presented in Chapter 4. Chapter 2, therefore, only presents a summary and the conclusions of the detailed analysis which is found in Chapter 4.

Chapter 4 is broken down into two parts. The first part presents an analysis of the potential impacts of only the proposed actions on each of the resources in the Analysis Area. The second part of Chapter 4 evaluates the long-term cumulative effects of the proposed actions in combination with impacts that might result if the management direction provided by TLMP continues unchanged.

You are apparently confusing the discussion of the impacts from the proposed actions, which are presented in Chapter 2 and the first part of Chapter 4, with the discussion of long-term, cumulative, and reasonably foreseeable impacts presented in the second portion of Chapter 4 (pp. 77 and 78 as quoted in the comment). There is a considerable difference between the relatively minor actions proposed in the documents and the reasonably foreseeable actions that might take place if forest management policies do not change over the next 91 years. It should therefore not be surprising that there are different conclusions reached in the two sections.

It might also be noted that with the TLMP revision underway, it is "reasonably foreseeable" that forest management policies will change such that the impacts to subsistence users may be less than projected.

237-9

The Draft SEIS does discuss the subsistence implications of a reduction in deer habitat capability. Discussions of the impacts to subsistence users are found in the section on subsistence which follows the wildlife sections from which your comment quotes. Additional information on subsistence uses was gathered during the Subsistence Hearings and is included in the FSEIS. The Forest Service would also like to point out the statements which summarize the importance of proposed mitigation measures in minimizing potential impacts (Analysis Area 3 DEIS, Chapter 2, page 104). The statements were apparently deleted from the quotes cited in the comments.

A clear reading of the DSEIS indicates that the "may significantly impact" finding is a result of the long-term cumulative impacts which result in increased competition. There is a potential conflict between subsistence and non-subsistence users because of this increased competition. It is this conflict which may lead to a restriction of subsistence resources. Increased competition is a result of many factors including private land management activities, State of Alaska sport and subsistence hunting regulations, State of Alaska ferry access to remote areas of the Tongass, as well as past and proposed actions of the Forest

Service. Please refer to Theme Response 5 on subsistence and to the FSEIS for clarification of the reasons behind the "may" finding.

237-10

The data from the Division of Wildlife Conservation, State of Alaska referred to in your comment was released after the DSEIS was released. This information is included in the additional information provided in the FSEIS. Please also refer to the discussion of increased demands for deer for sport and subsistence harvests provided in Theme Response 5.

237-11

ALS states that "[g]enerally, biologists agree that only 10% of a deer herd can be killed each year to maintain the long-term viability of the herd." The DSEIS in Phase I indicated that a range from 10 to 30 percent of a deer herd may be killed in a year without threatening the long-term viability of the herd. The value of 10 percent was used in Phase II because this is the value used by ADF&G. It is not true that biologists have reached a consensus on appropriate harvest levels. Not only do biologists disagree about what percentage of a total population constitutes a sustainable harvest, but biologists agree that the level could change from year to year depending on changes in such variables as the population age and sex structure, changes in habitat capability, and changes in management objectives (Downing 1980, Savidge and Ziesenis 1980, Denney 1978). Please refer to Theme Response 9 concerning the models used to determine habitat capability and the assumptions behind those models, and to Theme Response 7 concerning the Sitka black-tailed deer.

ALS is apparently making a distinction between subsistence users who are residents of established communities and subsistence users who are residents of logging camps. Further, you have apparently combined subsistence users from logging camps with sport hunters from outside of the area. These distinctions are not in accordance with legal definitions of subsistence uses and tend to distort the demands for deer. Please refer to Theme Response 5 concerning subsistence uses.

237-12

The Forest Service disagrees that it did not evaluate the effects of clearcutting and access roads on subsistence uses. These impacts were evaluated in Chapter 4 of each document. We would also like to point out that there are many other factors that contribute to the issue of overhunting on northeast Chichagof Island. Collectively, the combined impacts of private land management activities, including timber harvest and road building on Native lands, State of Alaska sport and subsistence hunting regulations, State of Alaska ferry access to subsistence use areas, and Forest Service land management must all be considered in a finding that there may be a significant impact to subsistence uses. The analysis of these factors presented in Chapter 4 of the DSEIS did find that there may be a significant impact to subsistence uses based on the effects of these combined actions and therefore, subsistence hearings were held. Please refer to Theme Response 5 concerning subsistence uses and the determination of

significance. The FSEIS contains further information that was used in determining potential impacts to subsistence uses.

Based on public comments, there appears to be confusion about the distinction between impacts from the proposed action and the reasonably foreseeable potential impacts. In response to this confusion, the FSEIS has been amended to separate the long-term, cumulative impacts of the proposed actions from the long-term impacts that might result from the combination of the management direction envisioned in TLMP, and a continuation of current State of Alaska and private land management directions.

237-13

The Forest Service disagrees that hunter success rates have been discounted. Hunter success rates may be an *indication* of deer population trends but it should be recognized that there are many factors that affect deer population trends. In addition to timber harvest and road building on National Forest lands, timber harvest and road building on private lands, State of Alaska sport and subsistence hunting regulations, and State of Alaska transportation systems that provide sport hunters with easy access to subsistence areas all contribute to increased competition and potential overhunting of deer populations. Please refer to Theme Response 7 for further clarification of the issues surrounding Sitka black-tailed deer habitat capability.

237-14

The Forest Service disagrees that the effects of the proposed actions on wildlife habitat were not discussed in the DSEIS (for example, see Analysis Area 3, Chapter 4 pages 12-22). In addition, the effects of the proposed actions on habitat capability for the brown bear, Sitka black-tailed deer, and pine marten, were discussed in the DSEIS in Chapter 4 in the section on Wildlife (in Analysis Area 3 this discussion is on pages 23-34). Please refer to Theme Response 7 for clarification of the models that were used in determining effects on habitat capability, and theme responses 3 and 4 for clarification of the impacts specific to brown bears and deer. As the discussion clearly indicates, habitat capability is affected by many factors in addition to the relatively minor changes in total forest cover that might occur as a result of the actions proposed in the DSEIS.

There is also apparent confusion about the difference between the proposed actions covered in this document and the reasonably foreseeable, cumulative impacts that might result from continued implementation of TLMP. The discussion of the long-term impacts assumes that *current management direction* will continue. The current management direction is presented in the Tongass Land Management Plan (TLMP). Although TLMP is currently under revision, the final form those revisions will take is still uncertain, and projecting long-term, cumulative impacts based on alternative long-term management direction is outside of the scope of this Supplement

The discussion of reasonably foreseeable impacts also includes the potential impacts from all sources, including timber harvest and road building on private lands, and a continuation of current State of Alaska management direction with respect to sport and subsistence hunting regulations and access to remote areas via the ferry system. All of these factors, over the long-term, could result in significant impacts to wildlife, particularly brown bears on northeast Chichagof Island, as pointed out in comments and in the DSEIS.

237-15

The State of Alaska, including ADF&G, has reviewed the DSEIS and their comments are responded to in the Forest Service's responses to the Office of the Governor. The comments by Flynn and Schroeder, referred to by ALS, do not represent official ADF&G or State of Alaska concerns and were not included in the State's comments. These attached comments by individuals who work for the State of Alaska represent individual concerns and will be treated as individual comments to the DSEIS.

237-16

The Forest Service disagrees that reliable, relevant scientific data was ignored in the SEIS evaluations of the short and long term impacts to subsistence uses. In addition to data collected during previous NEPA processes and during the *Hanlon v. Barton* litigation, data was collected for the SEIS process and during the subsistence hearing process. This data is presented in the FSEIS. Additional citations are also made in the FSEIS. Please also refer to Theme Response 5 for a more complete response to concerns dealing with subsistence data.

237-17

The Forest Service disagrees with the contention that meaningful public response to subsistence concerns was not possible. Please refer to the Theme Responses dealing with public involvement (Theme Response 1) and with subsistence (Theme Response 5) for a description of the opportunities available for public comment and the public comments received.

237-18

The purpose of the Open Houses, held prior to the Subsistence Hearings, was to allow people to meet with Interdisciplinary Team members and ask questions concerning the documents. The Subsistence Hearings followed these Open Houses. The Hearing Record, which is included in FSEIS Consolidated Appendix, Volume I, B-1, indicates that people who chose to participate in the hearings were able to understand the alternatives presented and the impacts evaluated in the DSEIS. The more than 200 pages of testimony that was submitted at the Subsistence Hearings indicates that people who chose to participate in the hearing process were successful in articulating their concerns. Please also refer to the Theme Responses on public involvement and process (Theme Responses 1 and 6) for an explanation of the objective of the Subsistence Hearings and the reasoning behind the format used.

237-19

In the *Hanlon v. Barton* Settlement Agreement, the Forest Service acknowledged that there was concern about subsistence resources and uses. Therefore, it was agreed that the Forest Service would analyze the available data in the SEIS and would hold subsistence hearings. The purpose of this process is to come to an independent conclusion on the potential impacts to subsistence resources. The DSEIS finding that the reasonably foreseeable, cumulative impacts may restrict subsistence use was arrived at only as a result of detailed analysis, and not as a requirement of the Settlement Agreement. It is not correct to say that Section 810 of ANILCA imposes more than procedural requirements on the agency. Please also refer to Theme Response 5 for an explanation of the ANILCA Section 810 process.

237-20

The stated purpose of the SEIS is to analyze the impacts of fulfilling the Forest Service's contractual obligations with the Alaska Pulp Corporation (Chapter 1, Purpose and Need Section of all four DSEISs). The purpose is not, as you assert, simply to maximize economic gain for the owners of the pulp mill. The section you quote continues with the explanation that "[t]he objectives of timber harvest result from specific guidelines furnished through legislation and historic direction related to employment, price stability, economic efficiency, foreign relations, small business, economic growth and development, community stability, and national security" (Analysis Area 3 DSEIS, Chapter 4, page 58). Please also refer to the Appendix "Responses to Phase I Public Concerns" (Appendix B-3, AA3 and AA12; Appendix B-1, AA2 and AA6) for an elaboration of the purposes and scope of this SEIS process.

237-21

As was pointed out in response 237-1, most of the alternatives presented in the DSEIS either propose no harvest in any of the units deferred by *Hanlon v. Barton* (Alternatives 1, 2 and 6) or harvest in only a few of the sixteen deferred units (Alternatives 4 and 5). Alternative 3 is the only alternative that proposes entering all of the deferred units. Please refer to the map of subsistence use areas now included in the FSEIS. In addition, it was the purpose of the Subsistence Hearings to determine which specific harvest units were important to subsistence users. Since that is data that was not available prior to the release of the DSEIS, one could not expect to find it in those documents. The results of the Subsistence Hearings have been analyzed and are included in the FSEIS.

The Forest Service would also like to point out that you have misquoted the document's conclusions concerning the impacts of Alternative 3 and also gave an incorrect page citation for that quotation. The correct page citation is Chapter 2, page 109. The quoted sentence summarizes potential impacts to subsistence and brown bear viability that might occur "unless the proposed mitigation measures are adopted." It is the policy of the Forest Service to apply mitigation, enhancement, and preventative measures wherever appropriate and necessary to minimize impacts to valuable resources.

ALS also apparently believes that Section 810 of ANILCA elevates subsistence uses above all other legitimate uses of National Forest lands. Section 810 does not prohibit Federal land use actions which may adversely affect subsistence uses. Section 810 does set forth a procedure through which such effects must be considered, and provides that actions which would significantly restrict subsistence uses can only be undertaken if they are determined to be necessary, consistent with the sound utilization of public lands, use the minimum necessary public land, and incorporate reasonable mitigation. Please refer to Theme Response 5 for clarification of the requirements which Section 810 imposes on the Forest Service with regard to subsistence uses.

237-22

The use of the term "primary-use subsistence communities" has been misunderstood. This term was not intended to imply any legal distinction. All subsistence resources and users in Analysis Area 3 were considered. The subsistence use patterns of the residents of the villages of Gustavus, Angoon, Haines, Kake, Skagway, and Sitka were evaluated. Detailed data on the subsistence use patterns of these communities were not presented in the DSEIS because they are voluminous, but they were and are available in the Planning Record.

Use patterns for all communities were summarized in the DSEIS in Chapter 3, both in the text and in several tables. For example, in Analysis Area 3, the Subsistence section includes all of the subsistence communities in Table 3-28, Figure 3-18, and Tables 3-29, 3-30, and 3-31, as well as text on pages 86-95. Additional information on subsistence uses from the Planning Record and from the Subsistence Hearing Record for all communities is presented in the FSEIS and in Theme Response 5.

Detailed analysis of the subsistence use patterns for the villages of Hoonah and Tenakee Springs were included in the DSEIS because the level of use in the Analysis Area attributable to those two communities is much higher than that of other subsistence communities. This form of presentation was not meant to imply that subsistence users from Hoonah and Tenakee Springs were somehow more important than other subsistence users, but only that their level of use in the Analysis Area was higher. For the purposes of ANILCA Section 810, the Forest Service does not make a distinction between subsistence users based on their level of use within the Analysis Area.

The quantitative measurements of hours engaged in subsistence uses or pounds of meat or fish taken for subsistence purposes are one type of measure of the importance of those subsistence resources to an individual or community. It is true that quantitative measurements in and of themselves are not a total measure of the importance of subsistence, and that is why ANILCA refers to the social and cultural importance of subsistence. However, quantitative measurements are the only objective criteria for analyzing subsistence. One of the purposes of holding subsistence hearings, as well as the TRUCS study, was to gain information on the

qualitative as well as the quantitative importance of certain areas and resources to a subsistence lifestyle.

Please refer to the Analysis Area 6 document for a detailed analysis of the high subsistence use areas of Angoon and Sitka. While these communities may be high subsistence use areas, they do not make as much use of Analysis Area 3 as the communities of Hoonah and Tenakee Springs. Subsistence users from Angoon and Sitka make much more use of Analysis Area 6, and, therefore, those communities were covered in that document.

The Forest Service disagrees that the necessary subsistence data was not compiled or that the effect of the proposed actions on subsistence uses was not evaluated. Please also refer to Theme Response 5, and the FSEIS.

237-23

It is an incorrect assertion that ANILCA requires the three findings set forth in Section 810 to be made at the draft stage of an EIS. Since no withdrawal or use of the land is made until the ROD is signed, it is not necessary to make these findings at the draft stage. It is only logical that findings would be made after all of the information, including information gathered during the subsistence hearing process, has been gathered. Please also refer to Theme Responses 5 and 6 for clarification of the ANILCA Section 810 requirements and process.

237-24

It is not possible to conclude at the draft SEIS stage that a breach of contract would be inevitable. It is necessary to consider the volume that will be available from all four Analysis Areas and determine if that volume will be sufficient to meet contract requirements. It is not possible to know what volumes will be available from other Analysis Areas until the NEPA process is complete and the ROD is issued. However, it is possible to project that Alternatives 1 and 2 would significantly increase the chance that a breach of contract would result. To avoid a breach of contract, the volume that is not harvested under Alternative 1 or 2 in Analysis Area 3 would have to be harvested in one of the other three Analysis Areas. It is possible that there would not be sufficient volume available from these other areas to meet the balance of the contract requirement. Please also refer to Appendix C of the Phase I DSEIS for reference to the January 4, 1985 agreement with Alaska Pulp Corporation.

237-25

The Draft SEIS does discuss mitigation measures (for wildlife, as an example) which would relate to subsistence use. Once all of the subsistence data have been gathered and analyzed, including the results of the Subsistence Hearings, then specific subsistence mitigation measures may be discussed. Please refer to the FSEIS for a complete discussion of mitigation measures proposed, including measures which are designed specifically to mitigate impacts to subsistence resources.

237-26

The development of additional logging camps is not a foreseeable, long-term impact of the proposed action, nor is it a cumulative impact. Rather, the impact from the development of additional logging camps is similar to the impact of connecting two road systems; it is an all or nothing impact which would be evaluated at the time it is proposed. Additional logging camps would require a special use permit which could only be issued after the NEPA process had been complied with.

ALS continues to make a distinction between the subsistence rights of their clients and the equally legitimate subsistence rights of logging camp residents in subsistence use areas. Please refer to Theme Response 5 for a clarification of the State regulations concerning legitimate subsistence uses.

237-27

The DSEIS lists a variety of mitigation measures for minimizing the impacts of timber harvest activities on other resources. These include the proper location of activities and application of Standards and Guidelines associated with carrying out those activities (described in the DSEIS, Chapter 4, on pages 99-101 in AA3, for example). In addition, road management measures such as road closures can be a valuable tool for minimizing impacts to wildlife (discussed in AA3, Chapter 4 on pages 101-103, for example). Site-specific applications of mitigation measures are described on the Unit Cards for each proposed harvest unit. Please refer to Theme Response 4 for a further clarification of the mitigation measures discussed in the SEIS.

237-28

The Forest Service disagrees that the subsistence evaluation is not site specific. In Chapter 3, figures clearly show community uses of the various subsistence resources by VCU (Figure 3-18 in AA3; Figure 3-25 in AA12; Figure 3-18 in AA6; and Figure 3-20 in AA2). In addition, subsistence uses are detailed on subsistence maps included in the FSEIS from the Planning Record and from information gathered during the Subsistence Hearings. Please refer also to Theme Response 4 for further clarification of the site-specific nature of the subsistence analysis.

237-29

Please refer to Theme Response 6 for a clarification of the planning and NEPA review processes. The review of the potential impacts to subsistence resources is not complete with the DSEIS, as ALS seems to believe. Proposed logging activities do not proceed with the completion of the DSEIS, but rather, a decision is made in the ROD based on the information and analysis in the FSEIS.

237-30

Your comment states that the Forest Service has failed to respond to concerns raised by ADF&G. The State of Alaska has commented on the DSEIS and those comments included concerns raised by the Department of Fish & Game. Forest Service responses to the State of Alaska (Letter 233) are included in this Appendix. The memoranda attached to Alaska Legal Services' main letter (Letter 237) are not official ADF&G comments, but are rather the opinions of individuals who happen to work for the State. Since the comments in the attachments were incorporated into ALS's letter by reference they will be treated as your concerns and are numbered 237-30 through 237-108. Please refer to response 237-15 for a clarification of this position.

You are apparently not aware of the numerous opportunities the ADF&G has had to work with the Forest Service on this SEIS process. Please refer to Theme Response 1 concerning public involvement for a clarification of the role of the State in this NEPA process. Other theme responses, including responses concerning deer (7), site specificity (4), and subsistence (5), contain numerous examples of ADF&G involvement in this planning process.

237-31

Your comment concerns the range of alternatives evaluated. The range of alternatives presented in Chapter 2 of each document clearly include both a No Action Alternative and a No Further Harvest Alternative. Please refer to Theme Response 6 concerning the planning process for a clarification of the range of alternatives presented.

237-32

In response to your concerns about effects to wildlife, please refer to responses 237-8 and 237-14.

237-33

Concerning the effects of recreation and hunting, the recreation sections of the long-term and cumulative impacts portions of Chapter 4 of each DSEIS do acknowledge that as the number of roads increase over the long term, sport hunting access may increase. Subsistence hunting is discussed in the sections on subsistence rather than recreation. Additional information is also presented in the FSEIS to support the conclusions reached in the DSEIS.

237-34

Please refer to Theme Response 9 concerning the models used to determine habitat capability for several species. Theme Response 9 discusses the definition of deer winter range used in the DSEIS and the habitat capability models used.

237-35

Please refer to Theme Response 2 for a clarification of the Forest Service's position on timber harvest activities in Trap Bay and the completion of the Kadashan Road.

237-36

Your comment concerns the harvest of riparian spruce. The Forest Service inventory of streamside riparian lands for Analysis Area 3 (Draft SEIS, Chapter 3, page 23) indicates approximately 8,300 acres of this habitat type existed prior to harvesting activities. Timber harvest through September 1, 1988 has left approximately 7,700 acres of this habitat (Chapter 3, page 27) which represents 93 percent of the pre-harvest total. The total acreage of forested lands which includes all habitat types within Analysis Area 3 is approximately 164,000 acres, which includes streamside riparian, inland wetland, beach fringe, and estuarine fringe. As the pre-harvest table (page 23) indicates, acreages of inland wetland, estuarine fringe, and beach fringe habitats are considerably less than streamside riparian. If a small total acreage of habitat indicates a relative "rare" forest type, then it should be noted that streamside riparian zones are more common than all other habitats bordering shorelines. The issue regarding a moratorium on further harvest in these habitats needs to be addressed during revision of the TLMP forest plan. For further information on the planning process, please see Theme Response 6.

237-37

Please refer to Theme Response 1 for a clarification of the implementation of the old-growth prescriptions. The Forest Service also disagrees that old growth-related concerns were not addressed in the DSEIS. In AA3, for example, old growth was specifically discussed on the following pages: 1-17, 2-99 through 101, 3-9, 3-10, 3-28, 3-30, 3-32, 3-38, 4-22, 4-23, and 4-77. In addition, information on old-growth prescriptions was used in the models to determine the impact of timber harvest activities on the Sitka black-tailed deer, brown bear and pine marten.

237-38

Please refer to Theme Response 9 for a clarification of the habitat capability models used in the analysis of impacts in the DSEIS.

237-39

Please refer to Theme Response 3 for a specific response to the issue of brown bear population viability.

237-40

Data required to be collected under the monitoring plan are noted on the Unit Cards for completed harvest units. These units cards are available for public review in the planning record.

237-41

The impacts of the alternatives on sport and subsistence wildlife uses are addressed in many places in the DSEIS documents. Your assertion that these impacts are not addressed has been responded to in 237-1, 237-2, 237-3, 237-5, 237-9, 237-12, 237-13, and in Theme Responses 1 and 5.

237-42

In response to your concern that the DSEIS used, but did not give citations for, unpublished materials, all remaining Phase I and Phase II DSEIS reference material is now cited in the FSEIS.

237-43

Theme Response 3 explains why brown bear habitat capability model information was not included in the DSEISs for Analysis Areas 2 and 6. At the time these documents were developed this was not perceived to be an issue in those areas. Based on public response, this data is now presented in the FSEIS.

237-44

The Forest Service disagrees that it is necessary to include modeling of black bear habitat capability for Analysis Area 12. During development and review of the 1981-86 EIS, impacts on the black bear resulting from timber harvest activities were not identified as an issue. Further, review during the 1986-90 EIS scoping process and throughout all court appeals did not identify this as an issue (Appendix B-4, DSEIS). The DSEIS did provide adequate information regarding black bear sport hunting (Chapter 3, page 30-31), forest harvest impacts on black bear habitat (Chapter 4, page 16), and long-term forest harvest impacts (Chapter 4, page 55). Each of these impact discussions dealt with the harvest effects related to habitat changes. Continuing wildlife habitat research has clearly shown that evaluating habitat changes provides a valid indication of animal population change. This data further provides adequate information to make a reasoned choice among alternative actions.

237-45

The DSEISs do not state or imply that the distance to salt water is a factor affecting the quality of deer habitat. Rather, the documents repeatedly emphasize that the low elevation forested habitats, beach fringe and estuarine, are the most important factors affecting deer habitat quality. It happens that these low elevation habitats in Southeast Alaska tend to be near salt water.

237-46

It is true that the pine marten model used in the DSEIS did not include impact analysis related to road density. The Final SEIS includes this information. For further clarification on data adequacy and model analysis, please see Theme Response 9.

237-47

Please refer to Theme Response 9 for a clarification of the accuracy of the habitat inventory databases used in the habitat capability modeling.

237-48

Please see our response to 237-42.

237-49

Please refer to Theme Response 5 for an explanation of the reasons why the subsistence use area maps which were not included in the DSEIS are now included in the FSEIS.

237-50

CEQ regulations (40 CFR 1502.22) do not require the agency to outline gaps in the data "that need to be filled by further research." Regulations simply require the agency to state where information is incomplete or unavailable. If feasible, research may be conducted to obtain relevant, essential information, but further research is otherwise not required. The information that was available provided an adequate basis for making a reasoned choice between the alternatives. TRUCs and other similar data are recognized as an evolving database that is continually improved and updated. The TRUCs reports have not been released as final documents and when complete will identify gaps in the available information.

237-51

Please refer to Theme Response 4 for a response to your repeated assertion that the documents are not adequately site specific.

237-52

We refer you again to Theme Response 5 for an explanation of the ANILCA Section 810 evaluation and determination process. ANILCA 810 determinations are not required in the Draft. Determinations are made in the Final SEIS after all of the relevant data including the results of the subsistence hearings have been collected and evaluated.

237-53

We refer you to Theme Response 5 for clarification of the proper location of subsistence mitigation measures. It is not necessary to detail subsistence mitigation measures until a determination of significant restriction of subsistence uses has been made.

237-54

See our response to 237-52.

237-55

We direct you to Chapter 1, Purpose and Need, and to the Consolidated Appendix, Volume III, D, the Notice of Intent, for the appropriate explanations and background of the reasons why these documents are being written.

237-56

Alaska Legal Services was involved in the Settlement Agreement in *Hanlon v. Barton*, and was aware of the extension of the time line for completion of the supplement.

237-57

The Forest Service disagrees with your statement that the DSEISs do not reflect the stated purposed in the Notice of Intent with regard to site-specific effects, cumulative impacts, Section 810 ANILCA evaluation and determination, and mitigation. The process is not complete, particularly with regard to ANILCA 810 evaluation and determination and mitigation, and the appropriate determinations will be made in the FSEIS. Please see Theme Responses 4 and 5, which deal with site specificity and subsistence concerns. You are incorrect about the purpose of the Phase II SEIS. See Chapter 1, Purpose and Need, and the Notice of Intent, for a clarification of the purpose of the Phase II SEIS.

237-58

The legal background you refer to may be found in the Appendices of both the Phase I and Phase II documents. The June 26, 1987 Memorandum and Order filed in the case of *Tenakee Springs v. Courtright* is reproduced in Appendix B of the Phase I Draft SEIS. The Settlement Agreements in both the *Tenakee Springs v. Courtright* and the *Hanlon v. Barton* cases are reproduced in Appendix A of the Phase II Draft SEISs.

237-59

Please refer to Theme Response 5 concerning subsistence data used in the evaluation.

237-60

Please refer to Theme Response 8 concerning the presentation of data in the planning record rather than the DSEIS. Considerable volumes of data have been incorporated into the DSEIS analysis by reference (per CEQ regulations, Section 1502.21). In addition, the sections on subsistence in the DSEIS are not as short as you state. For example, in AA3, 16 pages deal specifically with subsistence uses. It should also be noted that subsistence issues are dealt with in many places in the document other than sections labeled specifically "subsistence." For example, the discussions on impacts to wildlife relate directly to subsistence uses. Finally, land use decisions are not made at the draft stage of an EIS process. Please refer to Theme Response 6 for a clarification of the NEPA process.

237-61

The Forest Service disagrees that the documents are not site specific. Please refer to Theme Response 4 concerning site specificity.

237-62

See response 237-52.

237-63

Please refer to Theme Response 5 concerning subsistence data adequacy.

237-64

Please refer to Theme Responses 1 and 5 for a clarification of the subsistence hearing process.

237-65

Please refer to Theme Response 5 for a clarification of ANILCA 810 requirements. ANILCA 810 does not require an agency to evaluate substitution of other lands for logging or subsistence mitigation measures until a determination of a significant restriction of subsistence uses has been made. ANILCA 810 determinations are not made in the Draft SEIS prior to subsistence hearings.

Chapter 1 of the DSEIS does discuss each alternative considered but not evaluated further. Appendix B-3 also provides additional discussion on this topic. The conclusion of these discussions indicates that timber volume to meet APC contract obligations must come from Forest Service land within the APC Contract Area. Finally, the Phase I SEIS evaluated the entire APC Contract Area and concluded that Analysis Areas 2, 3, 6, and 12 would be further evaluated in Phase II. Phase II examined alternatives within each Analysis Area including mitigation measures. Those proposed mitigation measures (Analysis Area 3, Chapter 4, page 100) included protection of biological and land resources, scenic areas, and cultural sites.

237-66

See response 237-61.

237-67

See response 237-63.

237-68

Alternative 3 was tentatively identified as a preferred alternative pending public review and comment. Subsistence uses have been and continue to be considered carefully; however, ALS should be aware that ANILCA does not elevate subsistence above all other uses of the National Forest. Subsistence impacts are not the only factor that may influence a final land use decision.

237-69

The ROD will provide a description for monitoring impacts on subsistence needs. A monitoring plan was included in the 1986-90 EIS, and included in Appendix B-5 of the DSEIS. The 1986-90 monitoring plan will continue and will provide the following additions described in the ROD: an annual evaluation of monitoring results for mitigation effectiveness, implementation of the research design established with the Historical Preservation Officer, and streamside management programs. All these activities will be done in cooperation with ADF&G.

237-70

Your comment refers to page 2-31 of the AA2 DSEIS. This is a summary table which contains extremely concise statements that should not be taken out of the context of the whole document, including Chapter 4, where the detailed data, analysis, and conclusions are presented. Regarding data provided to Mr. Newhouse, please see the Forest Service Theme Response on Subsistence.

237-71

Please see our response to 237-70.

The finding that there may be a restriction of subsistence uses is based on the long-term cumulative effect of all management activities in the area, including private land management, State of Alaska regulations and actions, and Federal actions. It is not based only on cumulative impacts of the proposed action. Based on public confusion about this distinction, Chapter 4 of FSEIS has been modified to improve the readability of the documents. However, this does not affect the statements made in the summary table in Chapter 2 when taken in context with Chapter 4.

237-72

The table to which you refer on page 2-40 displays the economic contribution of the alternatives. They are not for a five-year period and so are not labeled as such.

237-73

The references used in the economic comparison of alternatives are all cited in the text and complete citations are given in Chapter 7, Literature Cited. In addition, all references cited are available in the Planning Record for independent review.

237-74

To explain Table 2-9, to which you refer: this table shows Alternative 1 resulting in a negative volume of harvest of 6.6 MMBF, because this is the volume that would be foregone by selecting this Alternative. The table also shows the number of jobs and value of the wages that would be lost as a result of not harvesting this volume.

237-75

See response 237-4.

237-76

The Forest Service disagrees that the necessary subsistence data was not compiled. Please refer to Theme Response 5 for a clarification of this subsistence data issue. The Forest Service also disagrees that the subsistence evaluation was not site specific. See response 237-28.

237-77

Figure 3-15 does not state that the data are based on a sample.

237-78

Figures 3-16 and 3-17 are relevant in that they illustrate the importance of hunting and fishing activities in various subregions of Southeast Alaska.

237-79

The footnote to which you refer on Figure 3-17 has been corrected in the FSEIS.

237-80

Please refer to Theme Response 4 concerning site specificity.

237-81

See our response to 237-22.

237-82

The title "other mammals" on Figure 3-18 is correct, as it is not intended to refer only to marine mammals.

237-83

Hoonah use of VCUs 198 and 199 will be included in the FSEIS.

237-84

The error to which you refer has been corrected.

237-85

The 1988 data for hunting trends was not available at the time that the draft SEIS was being formulated. The will be included in the Final SEIS.

237-86

See our response to 237-22.

237-87

In response to your concern on logging camp activity impacts on subsistence: State of Alaska regulations prohibit discrimination among residents of Alaska. Residents of logging camps in subsistence areas are legitimate subsistence users with the same rights, under the State regulations, as residents of established communities. Persons that do not qualify as residents of a subsistence use area still have the right to use those resources under the current State of Alaska sport hunting and fishing regulations.

237-88

Your comment asserts that the impacts on subsistence of the No Further Harvest Alternative must be discussed. As was explained in Chapter 2, if this Alternative is selected there will be no further harvest. If there is no harvest, there are no actions, therefore, there can be no impacts to subsistence.

237-89

The document states that traditional access to the subsistence resources in Analysis Area 2 would not be affected. Depending on Sealaska Corporation policy, over which the Forest Service has no control, there may be the potential for an increase in access at the Westport Log Transfer Facility. However, the proposed actions evaluated in this SEIS do not propose any new log transfer facilities or restrictions in current boat and float plane access.

237-90

See our response to 237-87.

237-91

The proposed actions, when implemented in accordance with the appropriate standards and guidelines, and necessary mitigation measures, should have no measurable effect on salmon spawning and rearing habitat.

237-92

See our response to 237-63.

237-93

The current TLMP established the Allowable Sale Quantity (ASQ) in accordance with the National Forest Management Act (NMFA). In the revision of TLMP, the ASQ or harvesting schedule will also be established. Concerns about the TLMP should be addressed to the TLMP revision team.

237-94

Please refer to Theme Response 5 for a clarification of the site-specific subsistence use area maps which were used but not presented in the analysis of impacts in the DSEIS. These maps are now also presented in the FSEIS.

237-95

Please refer to Theme Response 5 for a clarification of the ANILCA Section 810 process.

237-96

Please refer to Theme Response 5 for a clarification of the use of the TRUCS data in these SEISs.

237-97

A list of photo contributors is included in Chapter 5. Many of the photos used are historic prints and it is no longer possible to identify many of the people pictured.

237-98

The Executive Summary only provides an overview of the conclusions presented in Chapter 2 of each document. The Executive Summary was constructed by selectively printing appropriate sections of Chapter 2 from the complete documents for each analysis area. Therefore, there is nothing in the Executive Summary that is not already stated in the main texts.

Information presented in Chapter 2, and thus the Executive Summary, is a summary of the conclusions reached on the basis of analysis of data presented in Chapter 4 of each document. ALS is referred to Chapter 4 of the appropriate documents for complete site-specific information and analysis.

237-99

See our response to 237-71.

237-100

Please refer to Theme Response 5 concerning the adequacy of the subsistence data used.

237-101

See our response to 237-98.

237-102

See our response to 237-98. In the main texts, maps showing the ADF&G minor harvest units 3523, 3524, 3525, and 3526 are provided as Figure 3-2 in AA2, AA3, and AA6, and as Figure 3-5 in AA12. Please also refer to Theme Response 5 concerning the use of TRUCS data.

237-103

See our response to 237-22.

237-104

Please refer to Theme Response 5 concerning the use of TRUCS data.

237-105

The figure you cite, which is actually given on page 3-92, is from the TRUCS data.

237-106

Please refer to Theme Response 5 concerning adequacy of the subsistence data used.

237-107

See our response to 237-26.

237-108

Exhibit 5 was the opinion of an employee within the Division of Subsistence, ADF&G. The comments are directed at the Phase I DEIS and not the current Phase II DSEIS. These opinions were not included in the State of Alaska's comments to Phase I and therefore were never available for response by the Forest Service. However, the Forest Service will provide the following responses to each section:

Summary:

This section confuses the Phase I programmatic efforts with the site-specific requirements of Section 810. Phase II provides for Section 810 findings and determinations of site-specific proposed actions.

Specific Comments:

Planning Team Expertise - Please see Theme Response 5 on Subsistence concerning the use of a social scientist on the Interdisciplinary Team.

Section 810 - The FSEIS is the appropriate place for Section 810 determinations. Please see Theme Response 5 on Subsistence for the Forest Service response to Section 810 processes.

Timing - The Notice of Intent provided the time frame, scope, and purpose for issuance of the supplemental documents.

Subsistence Harvest Data - Please see our previous response concerning Section 810 determinations. In addition, the Forest Service has addressed these issues in Theme Response 5 concerning data for the subsistence findings. Data adequacy and wildlife models are addressed in Theme Response 9.

Deer and Salmon Harvest - Please see our previous response on the Summary. Further, the data are reported in the Phase II DSEIS, Subsistence section.

Personal Use - Please see our previous response on the Summary. Data was included in the Phase II DSEIS.

Subsistence Mapped Data - Added sites can be found in the FSEIS.

Maps Subsistence Use by Species - The FSEIS provides a subsistence use map by species for each community.

Analysis Procedure - The FSEIS completes the Section 810 determination process.

Chapter 3, Affected Environment - The Phase I SEIS data sources are cited in Appendix J.

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TELEPHONE (907) 586-6425

August 15, 1989

Mr. Michael A. Barton
Regional Forester
United States Forest Service
P.O. Box 21628
Juneau, Alaska 99802-1628

Re: Draft Supplemental Environmental Impact Statement
[DSEIS], Alaska Pulp Corporation Timber Sale, 1981-86
and 1986-90 Operating Periods

Dear Mr. Barton:

Alaska Legal Services Corporation represents the following, who are subsistence users in areas affected by the above Draft SEIS: Eli Hanlon, Sr., Individually and as Chief of the Wooshikitaan Clan, Richard Sheakley, Sr., Individually and as Chief of the T'Addeintaan Clan, Victor Bean, Richard Bean, Jr., Ernestine Hanlon, George Westman, and Douglas Glessing. These individuals were plaintiffs in the federal court case known as *Hanlon v. Barton*, No. J88-025 Civ. (D. Alaska). The *Hanlon* case was filed in July 1988, after the Forest Service's ongoing failure to redress the subsistence concerns raised in the administrative appeal (filed in March 1987) of the 1986-90 APC Operating Period Plan by Eli Hanlon, Sr., Ernestine Hanlon, and Douglas Glessing.

The Settlement Agreement in *Tenakee Springs v. Courtright (Tenakee II)*, No. J-87-024 Civ. (D. Alaska) required the Forest Service to evaluate the effects of its timber development in a supplement to its Environmental Impact Statement for the 1981-86 APC Operating Period Plan. The Stipulation for Entry of Injunction in *Hanlon v. Barton* mandated that the agency, *inter alia*, perform additional environmental analysis in its supplement.

We have reviewed the Draft SEIS which resulted from the above federal court actions. On behalf of our subsistence-dependent clients, we focused on the effects of the Forest Service's proposed logging activities upon their subsistence uses and needs. Based on that review, we offer the following comments.

237-1 Like its two predecessors, the Draft SEIS (Phases I and II) contains glaring deficiencies. To protect our clients' subsistence resources and uses and to avoid further litigation, we encourage the agency to use this opportunity to re-evaluate the analysis supporting its timber development alternatives, particularly the preferred alternative, alternative 3, which would clearcut *every* area deferred in the *Hanlon* Agreement. Because of past logging and roadbuilding around Hoonah, the sixteen cutting units deferred pursuant to the *Hanlon* Agreement have become even more critical as subsistence use areas than they were prior to timber development. Unfortunately, the agency's analysis does not recognize that fact, which was made

abundantly clear at the subsistence hearing in Hoonah on August 10, 1989 conducted pursuant to the *Hanlon* injunction.

237-2 The obvious goal of the subsistence evaluation is to protect subsistence resources, but adequate protection cannot be attained unless the Forest Service makes a thorough analysis of subsistence based upon adequate data. Unfortunately, the analysis in the Draft SEIS seems intentionally designed to ignore available information about the effects on subsistence uses of loss of habitat, ever-increasing competition from access roads, displacement from traditional subsistence areas, and the presence of logging camps. For example, in the course of the administrative appeal and federal court litigation in *Hanlon*, the parties submitted reams of information from biologists, anthropologists, subsistence users, and others.¹ Judging from the end product, none of the previously-submitted information was evaluated. One wonders to what lengths the Forest Service will go to ignore the effects of its timber development on the present and future lives of subsistence-dependent residents of rural villages in the Tongass, including Hoonah.

237-3 Having endured several years of inadequate or non-existent efforts by the Forest Service to evaluate subsistence concerns, our clients are quite concerned about the agency's ability at this late date to take appropriate action to protect those incredibly valuable subsistence resources as required by law. The first Operating Period affected by the Draft SEIS (1981-86) has long expired, and the second (1986-90) has almost expired, leaving only limited opportunity to implement any needed changes. Subsistence concerns have been addressed in this latest version of the planning document in a cursory fashion only after years of administrative hearings and appeals, and only after sharply contested litigation in Federal Court in *Hanlon v. Barton*. In the face of overwhelming evidence of restrictions to subsistence uses caused by the Forest Service's extensive logging plans, the Draft SEIS utterly fails to adequately address subsistence concerns, doing little more than paying lip service to subsistence, contrary to the mandate of the Court's order in *Hanlon* and the Alaska National Interest Lands Conservation Act [ANILCA].

The Draft SEIS also minimizes the significance of Judge von der Heydt's ruling in *Hanlon*, observing only that "the Court denied a motion for preliminary injunction, but recognized the merit of *some* claims." 1-12² (emphasis added). In fact, the Court ruled in plaintiffs' favor on four of their six claims. Moreover, the ruling was only a preliminary ruling and did not preclude the possibility of a final ruling in plaintiffs' favor on their remaining two claims.

¹ With eight exceptions, all of the exhibits which the plaintiffs submitted to Judge von der Heydt for consideration in the *Hanlon* court case have already been submitted to the Forest Service for inclusion in the administrative record. The exceptions are the exhibits submitted in support of plaintiffs' Application for Injunction Pending Appeal, Exhibits 49-56 in the court case. Copies of these eight exhibits are submitted herewith. The *Hanlon* plaintiffs respectfully request that these exhibits, along with all of the materials previously submitted in the administrative and court proceedings, be accepted into the administrative record and considered by the Forest Service in its preparation of the final supplemental EIS.

² Unless otherwise indicated, page references are made to the volume of the Draft SEIS affecting what the Forest Service describes as "Analysis Area 3: Freshwater-Whitestone."

237-4 The Draft SEIS fails to adequately evaluate measures for protecting subsistence uses and needs. Rather, it focuses upon a single goal -- maximizing economic benefit at all costs. Interestingly, the Forest Service claims that its perceived economic windfall promotes "community stability" in communities such as Hoonah. However, such a windfall can only exist so long as the timber remains and the necessary market conditions exist. In fact, once the timber is cut, logging operations must move elsewhere. The boom and bust cycles of the timber industry are hardly conducive to "community stability," and have the potential instead to destroy the cultural and social stability that existed in Hoonah and other villages for hundreds of years before the outside timber interests appeared. Moreover, the purported economic analysis only considers the economic benefits of the proposed logging and fails to assign monetary values to costs such as habitat rehabilitation or lost subsistence, fish and game, tourism, and recreational opportunities. It also fails to assess the cost of selling the timber at below market rates.

237-5 In any event, basing the decision of where and how much to log solely upon economic concerns is indefensible and is entirely in conflict with the requirements of law that govern the Forest Service. The continued failure of the Forest Service to protect wildlife habitat from unnecessary destruction will lead to the destruction of essential components of the subsistence way of life that has supported life in the communities of southeast Alaska for hundreds of years. ANILCA requires otherwise.

The Draft SEIS is Poorly Drafted and Internally Inconsistent

237-6 Despite ample lead time, the Draft SEIS is obviously a hastily prepared document. Its transparent goal is not to thoroughly or comprehensively evaluate environmental and subsistence impacts, but instead to complete the process as quickly as possible so that as many areas as possible can be logged as quickly as possible. The
237-7 predisposition of the Forest Service to ignore subsistence concerns was once again apparent when the agency initially scheduled the subsistence hearings required by ANILCA section 810 for mid-July, which is the busiest time for subsistence users and commercial fishermen. It is certainly ironic that the Forest Service would select a time to conduct hearings for the claimed purpose of obtaining input from subsistence users at a time when those users are unavailable to testify. Moreover, the change in hearing dates was made, not from a belated recognition of the unavailability of those subsistence users to testify, but because of a procedural error by the Forest Service in failing to properly mail notices to interested parties.³

237-8 The result of this unrelenting rush is a document obviously prepared in bits and pieces, lacking internal consistency. Examples of this confusion abound, but perhaps some sample comments regarding the document's description of the short term and long term effects of the proposed logging on wildlife habitat will sufficiently illustrate this point. The Draft SEIS asserts that the effect of alternative logging proposals on deer habitat capability by the end of 1990 (this Operating Period) is imperceptible, "so slight that it would be difficult to measure." 2-99.

³ Moreover, the new dates for hearings, in mid-August, are but a slight improvement over the original dates. Most subsistence users are still living away from the villages in their fish camps, with the result that they can attend the hearings in an effort to protect their subsistence only by incurring substantial expense and inconvenience, ironically being required to forego those very activities they are forced to defend.

- 237-8 Cont. However, the DSEIS later acknowledges substantial reductions in deer habitat capability from the proposed logging by the end of the contract period in 2011:

It is estimated that 77 percent of the forested habitat (84 percent on National Forest land) and 83 percent of deer winter range would remain unaffected by timber harvest activities through 2011. . . . The resulting change would probably lead to a reduced carrying capacity for the black-tailed deer.

....

. . . Timber harvest effects on deer habitat over the entire analysis area (all land ownership) would result in a habitat capability at 80 percent of the 1961 population by 2011 and 66 percent by 2080.

- 237-9 4-77 to 78. We submit that a one-third reduction in habitat capability is indeed significant, but the agency does not discuss its significance to the subsistence resources or the people dependent thereon.

The agency does admit that, largely through increased access, by the end of 1990 all of northeast Chichagof Island "could be affected . . . [and] the potential effects on key subsistence wildlife resources . . . is enough to substantiate a finding that the actions may restrict subsistence use" 2-104.

- 237-10 Although the agency admits increased roads and resulting access may further restrict subsistence resources, it evaluates the access problem and loss of habitat in isolation. In fact, the effects of logging development are occurring now. Loss of habitat is but one aspect of the overhunting of deer by loggers and non-subsistence hunters from Juneau. The Division of Wildlife Conservation has done what the Forest Service would not: it has listed deer take around Hoonah by community in 1987. See *Deer Demand by Minor Harvest Area - - APC Sale Area, Chichagof Island, Division of Wildlife Conservation, State of Alaska, 1989*, attached as Exhibit 1.⁴ The results are startling.

The Forest Service's deer model predicts that a given area is capable of supporting a certain number of deer. The areas around Hoonah are ADF&G-designated Minor Harvest Areas 3522, 3523, 3524, 3525 and 3526. The ADF&G's Division of Wildlife Conservation analyzed the hunter responses about the number of deer legally taken and reported around Hoonah in 1987. Exhibit 1 shows that for Mud Bay and Point Adolphus (Minor Harvest Area 3522), the habitat is capable of carrying 2353 deer. In 1987, 284 deer were harvested there. Of that total, Hoonah residents took 130. The population necessary to sustain that level of kill is 2,840. For that area, then, there are already more deer being killed than the population can sustain over the long-term.

The picture in other areas around Hoonah is not nearly so rosy. Port Frederick (both sides) (Minor Harvest Area 3523) is capable of supporting 3,139 deer. Exhibit 1. In 1987, 1,066 deer were killed there. Of that number, Hoonah hunters took 369, Juneau hunters 420, and Whitestone logging camp personnel 111. Exhibit 1. Thus,

⁴ Ernestine Hanlon submitted this document in support of her testimony at the Hoonah subsistence hearing on August 10, 1989.

237-11 almost one-third of the total possible deer population was killed in only one year. Outside hunters and logging camp personnel took almost 50% of the total killed that year. Generally, biologists agree that only 10% of a deer herd can be killed each year to maintain the long-term viability of the herd. Killing one-third of the maximum possible number of deer in one year will have obvious long-term consequences for the deer, upon which subsistence users depend.

237-12 The same theme of overhunting -- mostly by non-Hoonah and non-Tenakee Springs hunters -- was repeated throughout all of northeast Chichagof Island in 1987. Yet the agency says there will be only a slight impact to deer from loss of habitat due to more clearcutting. The agency simply failed to evaluate the concomitant effects of clearcutting and access roads on subsistence uses. Had it done so by even analyzing the data contained in Exhibit 1, the agency would have been compelled to find significant and irreversible impacts to subsistence from all the alternatives. Regrettably, the agency again seeks to hide the truth from affected subsistence users.

The long-term consequence of timber development around Hoonah also contradict the slight-impact picture painted earlier in Chapter 2.

... [T]he projected foreseeable and long-term timber harvest *will affect* the habitat capability of some species inhabiting the area.

The *reduction* in habitat capability due to the continued timber harvest activity on National Forest and Native Corporation lands *will affect* the availability of key subsistence wildlife species.

4-97 (emphasis added). This long term impact is already being experienced.

237-13 Due in no small part to loss of habitat and increased competition, see Exhibit 64, there has been a substantial decrease in Hoonah deer hunter success rates within only a two-year period, from 1985 to 1987. The success rate went from 0.9 hunter days per deer harvested in 1985 to 3.6 in 1987, an incredible four-fold decrease in success rate over only a two-year period. 3-93. Yet the Forest Service discounts this decrease merely because the success rate in 1987 was better than the abysmal rate in 1986. *Id.*⁵ As these diminished success rates so vividly demonstrate, it is not enough to merely conclude that sufficient numbers of deer remain to satisfy subsistence needs. Reductions in populations caused by factors such as diminished habitat capability do indeed significantly restrict subsistence uses, even if enough deer can be found somewhere to meet subsistence needs. And despite the acknowledged diminution of habitat, the Draft SEIS fails to address the impact of requiring hunters to relocate their hunting efforts due to either diminished game populations or increased competition.

237-14 Moreover, the Draft SEIS fails to recognize or disclose just how severe the effects on wildlife habitat will be. "All logging alternatives will cause a significant reduction in habitat capability for these species [brown bears, deer, and marten] and others, especially over the long term." *Memorandum from Rod Flynn, Wildlife Biologist*

⁵ The data on page 3-94 apparently documents the success rate for all hunters without distinguishing between sport and subsistence hunting. Thus, the data probably has questionable validity in evaluating subsistence hunting.

- 237-14 Cont. dated 24 July 1989 (Exhibit 2). The impacts on habitat are so severe that "[e]ventual local extinction [of brown bears] on Northeast Chichagof Island is probable with continuation of current forest management direction." *Id.* If the probability of local extinction of a major species is not a sufficient cause to require major modifications to logging plans, then nothing is.

The Draft SEIS Has Inadequate Data and Analysis and Suffers from Numerous Other Deficiencies

- 237-15 The Subsistence Division of the State of Alaska Department of Fish and Game has reviewed the Draft SEIS and pointed out numerous deficiencies. Rather than repeating those observations and conclusions, we note that those comments are thoughtful, well-considered, and highly accurate. Copies of those comments are attached hereto and incorporated by reference as fully as if set forth herein verbatim. The incorporated comments include: *Memorandum from Rod Flynn, Wildlife Biologist* dated 24 July 1989 (Exhibit 2); *Memorandum from Bob Schroeder, Division of Subsistence* dated 26 June, 1989 (Exhibit 3)⁶; and *Memorandum from Bob Schroeder, Division of Subsistence* dated 28 July, 1989 (Exhibit 4); *Memorandum from Bob Schroeder, Division of Subsistence* dated September 14, 1988 (Exhibit 5).
- 237-16 Besides the failure of the Forest Service to obtain necessary data, it has also ignored huge volumes of reliable scientific evidence presented to it throughout the prior administrative process and in the *Hanlon v. Barton* litigation. As a result of these numerous deficiencies, the Draft SEIS fails to adequately evaluate both short term and long term impacts of logging upon our clients' subsistence uses.
- 237-17 Our clients are particularly concerned that the information, meager though it may be, is presented so poorly that it is impossible for them to determine exactly what is proposed by the various alternatives. Because of the lack of data and analysis, coupled with its poor presentation and the failure to adequately describe the nature or location of subsistence restrictions, meaningful comment by subsistence users is virtually impossible. In this manner, the Forest Service has virtually insured that public comments will lack meaningful content.
- 237-18 For example, the subsistence hearings virtually assured that even if someone happened to be in the village, he or she knew virtually nothing about the scope of the hearing. The open house that preceded the hearings merely displayed a map with individual roads and clearcuts in a given unit; the road configurations and possible clearcut locations and configurations were not shown by alternative. How, then, could an interested subsistence user meaningfully evaluate the relative merit of various alternatives? The four volume DSEIS was also ready for willing readers but its complexity and length is of little or no benefit to the average affected subsistence user. During the hearing, which was held during purse seine and trolling openings, as well as during one of the busiest subsistence months, the hearing officer simply read a statement and turned on a tape recorder. No maps were posted so that subsistence users could demonstrate where they gathered subsistence foods nor were any questions answered. Although the hearings were ostensibly held to discuss the effects of various timber development alternatives on subsistence resources and

⁶ The comments in this memorandum refer to Analysis Area 2 and the page numbers contained therein. However, our comments as well as those of Fish and Game apply equally to Analysis Areas 2 and 3.

- 237-18 users, no mention was made by the hearing officer at any time during the hearing of
Cont. the DRAFT SEIS findings of the inevitable effects of all of those alternatives (such
as the inability to mitigate the impact of the loss of old growth stands of timber --
see 4-101).

The Forest Service Has Failed to Treat ANILCA Section 810 As Imposing Any
Substantive Requirements

- 237-19 In the Draft SEIS, the Forest Service finally makes the obvious conclusion that the
proposed logging activities "may restrict subsistence use." 2-104. The Forest Service
also recognizes that this conclusion triggers the requirement of ANILCA section 810
that it conduct hearings in affected communities. However, this conclusion was
reached begrudgingly and only as a result of the injunction entered by consent
following extensive litigation in *Hanlon v. Barton*.

- 237-20 However, the Forest Service is apparently unwilling to take the next step and
recognize that ANILCA sec. 810 imposes substantive requirements affecting the
ultimate result of those mandated procedures. Instead, the Draft SEIS clearly
indicates that the Forest Service believes that, so long as the procedural
requirements of sec. 810 are met,⁷ any result will be acceptable regardless of the
resulting harm to subsistence uses. The Forest Service acknowledges that its
proposed logging activities are in no way tied to whether anyone actually needs this
valuable timber, but that "[t]he primary reason for selling timber from the Tongass
National Forest is to provide for economic development and community stability."
4-58. Obviously, this entire analysis is premised upon maximizing economic gain for
the owners of the pulp mill without regard to the harm to resources dependent upon
the forest for their very existence and the resulting harm to residents of communities
such as Hoonah and Angoon.

The United States Supreme Court has already confirmed that ANILCA has a
substantive component, thereby requiring much more than a mere review of
pertinent facts. "The purpose of ANILCA sec. 810 is to protect Alaskan subsistence
resources from unnecessary destruction." *Amoco Production Co. v. Village of
Gambell*, 107 S. Ct. 1396, 1403 (1987). Ignoring the Supreme Court's authoritative
interpretation of ANILCA's mandate, the Forest Service has selected as its
preferred alternative the option involving the most extensive logging in the most
critical and sensitive areas to our clients' subsistence uses. Those areas are the ones
where logging was deferred by the terms of the injunction in *Hanlon v. Barton*.

- 237-21 The Forest Service proposes to clearcut 79 million board feet of timber, and of that
total, a staggering 19 million board feet, almost one fourth of the total, "would be
[clearcut] from the *Hanlon v. Barton* deferred units in VCUs 208, 209, 210, and 212."
2-29. The limited areas deferred by the lawsuit were narrowed by our clients to only
those areas most critical to subsistence. Not only should those deferred areas
receive permanent protection in order to protect subsistence uses, but additional
areas should also be deferred. Instead, the Forest Service has identified the most
critical subsistence use areas and then decided to focus its logging activities in those
very areas. The preferred alternative "picks up *all* the volume deferred by . . .
Hanlon v. Barton," notwithstanding that this alternative is admittedly "low in

⁷ For the reasons set forth elsewhere in this letter and in the State's comments incorporated herein,
the Forest Service has also failed to comply with the procedural requirements of sec. 810.

effectiveness in responding to concerns over subsistence and brown bear viability." 4-109 (emphasis added).

In short, ANILCA Section 810 requires the Forest Service to protect subsistence resources and uses. Not only does the preferred alternative fail to provide that protection, but it seems designed to destroy those resources and thereby prevent those uses.

237-22 The Forest Service Has Created the Concept of "Primary Use Subsistence Community" to Evade Its Obligations Under ANILCA Sec. 810

The Forest Service has confined its already meager analysis of subsistence uses⁸ to residents of the villages of Hoonah and Tenakee Springs, thereby totally ignoring the villages of Gustavus, Angoon, Haines, Kake, Skagway, and Sitka. In *Hanlon*, the Court found that the Forest Service applied the wrong legal standard in evaluating the effect of its authorized activities on subsistence uses. In other words, the agency *per se* violated ANILCA, section 810. The "primary subsistence community use" concept is also a *per se* violation of Section 810. The Forest Service simply does not have the legal authority to craft such a bogus legal distinction. It has done so based upon the contrived and factually unsupported basis that only Hoonah and Tenakee Springs are "'primary-use subsistence' communities," while the other villages are claimed to be only "[s]ubsistence communities with occasional use, primarily for deer." 3-87.

This factual distinction itself is incorrect. Not surprisingly, the Forest Service presents absolutely no data or analysis in support of this distinction. In fact, these other villages where the Forest Service claims subsistence uses are only "occasional" actually have very high levels of subsistence uses. See, e.g., Administrative Appeal Exhibit 51 (Sitka) and 52 (Angoon).

Perhaps more importantly, Section 810 does not condition its protections upon some threshold level of subsistence uses or some percentage of dependence by a given community upon subsistence. If the proposed action by the Forest Service may significantly restrict subsistence uses, as in the present case, then the hearings must be conducted and the findings made. ANILCA recognizes and protects subsistence uses by all rural residents of Alaska, ANILCA Section 803, not merely those whose use is more than what the Forest Service deems "occasional." No particular amount of subsistence use is required to benefit from ANILCA's protections; moreover, quantitative measurements of the hours engaged in subsistence uses or pounds of meat or fish taken for subsistence purposes by a particular individual or community do not necessarily measure the importance of those subsistence uses to that individual or community. Even if they did, the decisions about which communities' residents are entitled to ANILCA's subsistence protections are made by the State of Alaska, not the U.S. Forest Service. Thus, by its own admission, the Forest Service has completely failed to compile the necessary data about and evaluate the effect of its proposals on a substantial portion of the subsistence uses in the affected area.

⁸ As previously noted, even where it has compiled data and performed analysis of subsistence in the Draft SEIS, both the data and the analysis fall far short of what is required or sufficient.

The Forest Service Has Failed to Make the Findings Required by ANILCA Section 810

237-23 The commands of ANILCA Section 810 are clear and explicit -- the Forest Service simply has no authority to permit the logging activities to proceed until notice is given, hearings are conducted, and the following determinations made:

- (1) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands;
- (2) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition; and
- (3) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such activities.

The Forest Service has failed to make any finding that the harm to critical subsistence areas is necessary. This finding is particularly critical in view of the conclusion that it is impossible to mitigate the harm to wildlife habitat caused by destruction of old growth forests and by displacement resulting from timber harvesting and road construction. 4-101. Yet the Forest Service only discusses the necessity of complying with the terms of the Pulp Corporation's fifty-year contract, apparently concluding that since its compliance with that contract is deemed necessary, then any logging to satisfy the contract terms is equally necessary.

237-24 Even assuming that the Forest Service must in fact supply the minimum volumes of timber required by that contract, that necessity does not compel the conclusion that critical subsistence areas must be logged. Even utilizing certain alternatives as proposed and described by the Forest Service, Alternatives 1 and 2, for example, would continue to defer logging and road building in those critical subsistence areas where those logging activities are now deferred by the terms of the injunction in *Hanlon v. Barton*. Although the Forest Service voices some concerns about its ability to meet the contract's volume requirements if either of those alternatives is adopted, 2-108, -109, nowhere does it conclude that a breach of the contract would be inevitable. Moreover, there is no evaluation of the possibility of obtaining the contract volume from other locations or sources. Thus, even under the Forest Service's evaluation of the contract terms, there are no facts to support a finding that logging activities in the critical subsistence areas identified in *Hanlon v. Barton* are necessary.

237-25 In addition to its failure to find that the proposed logging activities are necessary, particularly in critical subsistence areas, the Forest Service has failed to adequately make either of the other two required findings. In terms of planned mitigation, the Draft SEIS is woefully inadequate. No mitigation is planned other than what was planned under prior versions of the EIS. 4-99. The Draft SEIS is devoid of any subsistence-specific mitigation measures, and it is devoid of any discussion of mitigation measures proposed in light of what should have been its detailed subsistence data and analysis. These omissions violate the command of sec. 810.

The overall message conveyed by the Draft SEIS is that the only significant harm to subsistence is caused by increased competition for subsistence resources. Although this conclusion is incorrect, as noted earlier, the Forest Service has even failed to adequately address mitigation efforts relating directly to this increased competition.

- 237-26 In fact, the Forest Service refuses to even evaluate the effects of increased competition, let alone going so far as to propose measures to mitigate the harm the competition will cause. It acknowledges that there will be increased competition from future logging communities. The Forest Service draws the unremarkable conclusion that "[t]here is a potential for the development of additional logging camps," 4-97, a fact which should be patently obvious in light of the extensive logging already done and the long term plans to harvest huge volumes of additional timber which much necessarily come from virtually every conceivable location in the analysis area. The effects of such logging camps certainly amount, at the very least, to foreseeable long term impacts. Yet the Forest Service refuses to predict the effects of that increased competition on our clients' subsistence uses. Instead, it merely promises to make that evaluation later, concluding that it is "difficult to visualize an effect" on fisheries resources from increased competition. 4-98. The analysis requires more than what might be conceived or visualized. It requires genuine research, hard data, and thorough analysis, commodities sorely lacking in the Draft SEIS.
- 237-27 Rather than attempt to mitigate the devastating harm it proposes to inflict upon subsistence uses, the Forest Service merely throws up its hands, claiming that it is impossible to mitigate harms caused by destruction of old growth forests and road building. 4-101. Such a conclusion should, at the very least, have a dramatic effect on what the Forest Service considers to be necessary.

Is it really "necessary" to destroy irreplaceable old growth forests, to irreversibly damage subsistence uses, to displace hunters and wildlife, to induce localized extinctions of major species, and to threaten the destruction of a legally protected way of life that has existed for centuries, all for the mere sake of enhancing the profits of a single timber company and its subsidiaries and subcontractors due to an ill-advised and poorly conceived contract? We submit that it is not.

The Draft SEIS Is Not Site Specific

- 237-28 The DSEIS evaluates most effects of its timber development on northeast Chichagof Island by VCU. *See, e.g.*, 3-2 to 3-8 (description of soil types VCU by VCU); 4-89 to 4-90 (recreational consequences VCU by VCU); 4-90 to 4-93 (visual effects VCU by VCU). Interestingly, in Chapter 4, where recreational and visual effects are discussed VCU by VCU, subsistence is only discussed in the broadest, most general terms, *see* 4-96 to 4-98, which is not even appropriate analysis as to individual VCUs. Even assuming that the data and analyses were adequate as to an entire VCU, which they clearly are not, a VCU is simply too large an area to be sufficiently site specific. A VCU is a major watershed containing thousands of acres. For the evaluation to be valid and to take account of variation in habitats, terrain, vegetation, and other critical factors that occur over an area as large as a VCU, the analysis must be broken into smaller, more site-specific subsistence use areas. For example, given areas within a VCU are important for subsistence areas but the agency has failed to site-specifically evaluate those uses.

Conclusion

Because of the deficiencies and omissions previously described, substantial data remains to be compiled, existing data must be incorporated, and genuine analysis of data made for there to be any prospect for an adequate evaluation of the effects of the proposed logging upon our clients' subsistence uses. Only when this factual predicate has been laid can the findings required by ANILCA sec. 810 be made.

237-29 In short, the Forest Service has failed in its task and has fallen far short of its goal of protecting subsistence uses. Both ANILCA and NEPA require this review before the proposed logging activities may proceed. Our clients do not seek to prevent the Forest Service from pursuing its legitimate objectives. However, the severe and repeated failures of the Forest Service to evaluate subsistence uses require it to delay authorizing any further logging activities pending completion of this review.

To the extent that any appropriate logging activities are thereby delayed, the blame can only be placed at the Forest Service's door. Our clients have sought proper evaluation and protection of their subsistence uses for many years. Rather than taking the necessary action, the Forest Service has only resisted performance of the duties imposed by law. Its failure to perform those duties cannot be tolerated. Until the Forest Service performs its obligations, implementation of its plans is inappropriate and contrary to law.

Sincerely,

ALASKA LEGAL SERVICES CORPORATION

Joseph D. Johnson by VAS

Joseph D. Johnson
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DEER DEMAND BY MINOR HARVEST AREA -- APC SALE AREA, CHICHAGOF ISLAND

Minor Harvest Area	Habitat Capability* 1988	<i>(Number of Deer Each Unit Can Support)</i> Community Harvest (1987)	Current Harvest Objective Harvest Satisfaction (1987)	Population Objective Number of deer needed to sustain current deer harvest level
1521		All Gustavus Haines Juneau Other Alaska	121 67 22 29 3	1210
1522		All Elfin Cove Excursion Inlet Gustavus Haines Hoonah Juneau Petersburg Skagway	284 11 3 12 56 130 63 5 4	2840
1523		All Eight Fathom Excursion Inlet Gustavus Haines Hoonah Juneau Ketchikan Sitka Skagway Tenakee Springs Whitestone Lk	1066 24 6 8 82 369 420 12 22 7 5 111	14480

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DEER DEMAND BY MINOR HARVEST AREA -- APC SALE AREA, CHICHAGOF ISLAND

Minor Harvest Area	Habitat Capability* 1988	2054 2087	Community	Current Harvest Objective Harvest Satisfaction	Population Objective (Continued)
Spaski & Whitestone Harbor 3524	945 987	739	All Haines Hoonah Juneau Whitestone Lk	261 17 110 102 32	356 24 154 143 35
Freshwater Bay 3625 3525	2190 2210	1548	All Freshwater Bay Hoonah Juneau Ketchikan Other Alaska Sitka Skagway Tenakee Springs Whitestone Lk	535 43 140 254 6 5 11 16 20 40	677 13 196 356 10 8 14 14 22 44
Tenakee Springs 3626	527 801	521	All Haines Juneau Tenakee Springs	252 30 166 56	336 42 232 62
Goose Flats & Upper Tenakee Inlet 3630	376*		All Haines Juneau Tenakee Springs	100 39 44 17	135 55 62 24
					1000
					1350

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* Deer habitat capability figures are from the APC long-term sale SEIS, Phase 1 and Hank Newborne, pers comm.

Document prepared by Division of Wildlife Conservation, State of Alaska, 1989. Figures based on habitat capability of sustainable deer harvest from U.S.F.S. SEIS Phase II.

MEMORANDUM

State of Alaska
Department of Fish and Game

To: Don Cornelius
Habitat Biologist
Division of Wildl. Cons. File No.:
Region 1

Date: 24 July 1989

Telephone: 465-4265

From: Rod Flynn *R.F.*
Wildlife Biologist
Division of Wildl. Cons.
Region 1

Subject: APC DSEIS Phase II
comments

I have reviewed the draft Supplement to the Environmental Impact Statement (DSEIS) for the 1981-86 and 1986-90 Operating Periods for Alaska Pulp Corporation (APC) Long-term Timber Sale Contract Area. I would like to bring the following general concerns to your attention for inclusion in the Department's comments:

- 237-30 **1. Failure to address Department's concerns.** The DSEIS fails to respond to many of the concerns that the Department has raised numerous times during planning for this important wildlife area. We have commented on the original 89-90 Operating Plan, the supplement to the 86-90 Operating Plan, and the DSEIS Phase I. Many of our comments have been the same on each document. The US Forest Service has not made a "good faith" effort to address important wildlife concerns in these documents. The issues include deer winter range, old-growth habitat management, impacts on human use of wildlife resources, deferred areas, mitigation, monitoring, and others;
- 237-31 **2. Lack of a reasonable range of alternatives.** Even the "no action" alternative schedules a substantial amount of logging. The management actions need to be compared against a true no additional logging alternative so the effects of past logging actions can be displayed clearly. At least one alternative should have minimal impact on wildlife habitat even if that requires not meeting the terms of the long-term contracts. Because of the mislabelling of the no action alternative, the alternatives in DSEIS are extremely confusing;
- 237-32 **3. Short and long-term effects considered minimal.** The DSEIS states repeatedly that the logging alternatives will have minimal effects on wildlife. These statements are misleading and incorrect, especially for brown bears, deer, and marten. All logging alternatives will cause a significant reduction in habitat capability for these species and others, especially over the long term;

237-33

4. Recreation impact assessment inadequate. The DSEIS only considers changes in Recreation Opportunity Spectrum (ROS) classifications. It says nothing about actual effects of recreation, especially hunting. We have already observed major changes in hunting patterns in the area, especially Northeast Chichagof;

237-34

5. Deer winter range definition incorrect. The criteria used to determine deer winter range in this document are incorrect. We have pointed out this fact during each comment period on this Operating Plan. Although the documents state that Department staff and research papers were used to identify deer winter range, Forest Service staff have repeatedly ignored Department input on the definition of deer winter range. The continued use of this incorrect definition of deer winter range in this document results in a misleading analysis of the impact of logging on deer.

Because of past disagreements, Division staff have met with Forest Service staff numerous times during the past 3 years to develop a consensus procedure to rate the value of habitats on the Tongass National Forest as deer winter range. The result of this effort has been summarized in Suring et al. "Habitat capability model for Sitka black-tailed deer in southeast Alaska: winter habitat". The product of this cooperative effort should be used in this DSEIS to define deer winter range.

The habitat capability model used in the DSEIS, adapted from the Suring et al. model, is an important improvement over the model used in 1986-90 FEIS. However, the habitats rated as high value deer winter habitat by the model have no direct relationship to the areas identified as deer winter range or habitat for old-growth dependent species in the DSEIS. Because the definition of deer winter range used in this document is incorrect, the entire analysis of impacts of logging on deer winter range is meaningless.

Although an important step forward, the use of the deer habitat capability model in this application could be improved. The current implementation minimizes the impacts of the past and proposed logging on deer. Elevation is an important attribute of deer winter range. If unable to track logged stands by elevation class, the analysis should assume that most of the past clearcuts have been below 800' in elevation. The habitat capability for the areas should be reduced by the value of the logged stands. Proposed clearcuts should be evaluated as above or below 800' and the appropriate reduction in habitat capability made. Cuts above 1,500' would have no impact. The complete Suring et al. model should be used for the final SEIS;

- 237-35 **6. Rooding and logging of sensitive wildlife areas should be deferred.** The preferred alternative schedules the completion of the Kadashan road and logging in Trap Bay. The Southeast Conference has recommended that both of these areas receive permanent protection. Logging and rooding of these areas should be opposed vigorously;
- 237-36 **7. Logging of riparian spruce should cease.** The USFS Forest Sciences Lab has initiated a project to study regeneration in riparian spruce stands. Additionally, the Forest Service has a poor and conflicting inventory of this relatively rare forest type. A moratorium should be placed on the logging of these stands until the USFS study and a reliable inventory have been completed;
- 237-37 **8. Old-growth habitat prescription poorly implemented.** The value of the areas identified as old-growth prescription to wildlife is not assessed. The selection of the stands for this prescription was not coordinated with the Department. Information is not provided in the document to allow an assessment of the value of the selected stands to old-growth dependent species. We have little confidence that the identified stands protect much high quality wildlife habitat;
- 237-38 **9. Habitat capability models need more clarification.** The use of habitat capability models for assessing the impacts of land management activities a selected wildlife species is an important step forward. However, the habitat capability models used for assessing brown bear, deer, and marten habitat need more documentation. A March version of the deer model write-up was prepared and should be used. Because of data limitations, many adjustments were made to the Suring et al. model for this application. These modifications need to be clearly stated because use of the actual Suring et al. model could greatly change the deer outputs for this area. Also, it should be stated that the current model differs radically from the model used in the 86-90 FSEIS. A write-up of the marten model was reviewed earlier and should be included. A write-up of the brown bear model should be included. The brown bear model write-up is important because the model evaluates the impacts of vegetative change caused by logging and also the impact of human developments. In particular, the model assesses the negative impacts of rooding, camps, and communities. The current text does not adequately display or discuss these impacts;
- 237-39 **10. Population viability of brown bears threatened.** The current and proposed logging activities on Northeast Chichagof (AA3) threaten the short and long-term survival of the brown bear population. Most experts agree that a closed population of less than 300 individuals is below the numbers required for long-term population viability. Because the Northeast Chichagof brown bear population is

not completely isolated, a population of greater than 150 individuals may be viable if brown bears were not depleted in nearby parts of Chichagof Island. The estimated habitat capability for brown bears in Analysis Area 3 is 138 bears and our current population estimate is about 125 bears; both figures are below 150. Any additional reductions in bear numbers will result in a closure of subsistence and recreational hunting. Eventual local extinction on Northeast Chichagof Island is probable with continuation of current forest management direction. Brown bear habitat capability is not adequately addressed in Analysis Areas 2 and 6, especially in terms of roading the Kadashan drainage;

237-40

11. Monitoring requirements - have they been implemented?. After 4 years of a 5-year plan, the monitoring plan should be implemented fully. How much of the 1986-90 monitoring plan has actually been implemented? For example, has mapped deer winter range been verified? deer occurrence measured? effectiveness of solid waste disposal measures recorded? and eagle nest tree buffers monitored?;

237-41

12. Impacts of the human use of wildlife resources not evaluated. The document fails to assess adequately the impacts of the alternatives on the human use of wildlife resources. The impacts of recreational and subsistence uses need evaluation;

237-42

13. Portions of the text used unpublished material without reference. Much of the text on brown bears and old growth were extracted from unpublished sources without proper reference. The source of all materials used should be credited properly.

237-43

14. The documents for Analysis Areas 2 & 6 do not adequately evaluate the impact of roading, logging, and human developments on brown bears. The habitat capability model used for Analysis Area 3 should be used in Analysis Areas 2 & 6. Otherwise, the impacts of roading and logging these areas will be greatly underestimated. We are especially concerned about the impact of the proposed Kadashan road on brown bear habitat capability. Also, the population viability assessment for brown bears in AA 3 needs to be done in conjunction with AA 2. Division staff would be happy to work with the USFS to extend the brown bear analysis to the other areas;

237-44

15. Analysis Area 12 does not adequately evaluate impacts on black bears. Black bears are an extremely important resource in AA 12. In addition to changes in the described habitats, the roading and camps associated with logging will negatively affect black bear populations. A habitat capability model by Suring et al. "Habitat capability for black bears in southeast Alaska" should be

used here. The importance of Security Bay as a black bear hunting area for guided nonresidents should be recognized and the impacts of logging on guided hunts assessed;

237-45

16. **Parts of the text on deer are inaccurate.** The frequent reference in the documents to the importance of distance to salt water to deer is disturbing. Research in southeast Alaska has never demonstrated that distance to salt water is an important factor affecting the quality of deer habitat. Elevation, plant association, stand structure, and snowfall patterns are the most important factors.

237-46

17. **Marten habitat capability assessment does not include impacts of roading.** The Suring et al. model, "Habitat capability model for marten in southeast Alaska: winter habitat" includes a procedure to assess the impacts of roading on marten habitat capability. Because of the high road densities in many of these areas, it is important to assess the impacts of the roads on marten habitat capability. With just the vegetative change caused by logging, habitat capability of marten in some areas has been reduced to points where population viability becomes a concern. An assessment of roading impacts on marten is needed to better determine the appropriate level of concern;

237-47

18. **The accuracy of the habitat inventory database used for the habitat capability estimates is uncertain.** The habitat capability outputs for deer, marten, and brown bear are dependent on the habitat inventory database. The database used and whether the used database was the most accurate to determine wildlife habitat capability remains unclear. The documents for Analysis Areas 2, 3, & 6 state that the TLMP photo points inventory was used. The document for AA 12 states that the timber layer of a Geographic Information System was used for the deer habitat capability assessment, and the Multi-entry layout process database was used for the timber inventory. Are these the same databases? Additionally, the multi-entry layout process database is shown to differ substantially from the TLMP photo points database. The magnitude of difference is disturbing. Does this degree of difference exist between these databases for other areas? Furthermore, the Department was provided a summary of timber inventory information in April 1987 which we understood at the time to be the most accurate inventory database available. This database differs substantially from the databases used in these documents. The amount of high-volume forest (volume classes 6 & 7) is of particular concern because of the high wildlife habitat value of this forest type.

cc: Dave Anderson/Wildlife/Douglas
David James/Wildlife/Petersburg
E. L. Young/Wildlife/Sitka

EXHIBIT 2
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Memorandum

State of Alaska

Alaska Department of Fish and Game
Division of Subsistence

To:
Don Cornelius
Area Habitat Biologist
Habitat Division
Petersburg

Date: 26 June, 1989,

From:
Bob Schroeder
Division of Subsistence
Juneau

Subject: Draft SEIS review

Thank you for the opportunity to provide comments on the APC Long-term Timber Sale Contract Draft Supplement to the Environmental Impact Statements for the 81-86 and 86-90 Operating Periods, Phase II (SEIS2). My comments will focus on sections dealing with subsistence and 810 evaluation. I have included less thorough comments on other portions of the document. I may have further things to add after other Division of Subsistence are briefed, and I am willing to follow this through DGC if you think that this would be useful.

The Division of Subsistence submitted detailed comments on the Phase I SEIS (SEIS1) on Sept. 14, 1989. The final SEIS1 has not been released. Our more general comments made on the SEIS1 have not been considered in the SEIS2. Please refer to that earlier set of comments (copy attached).

Summary

The subsistence sections of the SEIS2 are wholly inadequate as written and appears to be more a politically motivated argument for the logging industry than an objective environmental impact statement. An environmental impact statement must include a full description of relevant data so that the reviewing public can evaluate conclusions that are reached. The SEIS2 is extremely thin on subsistence data and resembles a legal document arguing for one side of a suit.

The document does not:

- 237-48 make use of easily available historical and contemporary descriptive and quantitative data on subsistence uses,
- 237-49 include subsistence use area maps for affected communities,
- 237-50 outline gaps in the data that need to be filled by further research,
- 237-51 perform site-specific analysis as ordered by the court,
- 237-52 make defensible 810 evaluations and determinations, and
- 237-53 does not outline possible measures to mitigate significant restrictions to subsistence uses.

EXHIBIT 3
p. 1 of 7

- 237-54 The document has not incorporated the State of Alaska comments on the SEIS1 and the ADF&G direction given to U.S. Forest Service on conduct of 810 evaluations and determinations. For these reasons the SEIS2 should be rejected in its current composition.

The following comments are presented to detail some specific problems and mis-statements found in the SEIS2 and page comments for Analysis Area 2. Because the SEIS2 is intrinsically incomplete and flawed however, correction of these flagged problems will not cure the disease. I will supply page comments for the other three volumes if they are needed.

Context:

- 237-55 The authors of the document do not clearly explain why supplements are being written and critical court orders are not reproduced for public review. For this reason, it may be difficult or impossible for rural Alaskan citizens who do not have access to original legal documents and previous U.S. Forest Service planning documents to adequately review this complex document.
- 237-56 The SEIS1 and SEIS2 were undertaken as part of the Settlement Agreement between the Plaintiffs and U.S. Forest Service filed Apr. 20, 1988 in the City of Tenakee Springs *et al v. Lyng* and City of Tenakee Springs *et al v. Courtwright* cases, (see appendix A-2). This agreement called for completion of the EIS supplement and issuance of a record of decision by May 1, 1989. The draft SEIS2 was mailed to our office on June 7, 1989.
- 237-57 Mr. Barton's notice of intent (Appendix A-1), Sept. 30, 1987, details what will be in the SEIS1 and SEIS2. As ordered by the court, the emphasis in these documents is to be on site-specific effects, cumulative impacts, Section 810 ANILCA evaluation and determination, and mitigation. SEIS1 was to address the entire study area with emphasis on areas scheduled to be logged and/or roaded while the supplement was in preparation; SEIS2 was to focus on areas likely to be logged and/or roaded after completion of the SEIS. The content of the SEIS1 and SEIS2 do not reflect this intent.
- 237-58 The appendices, which are duplicated in each of the four volumes of the SEIS2, include a selection of useful legal background. They do not reproduce either of the two court decisions that are critical to understanding the task at hand. Missing are reproductions of the June 25, 1987, decision in the City of Tenakee Springs *et al v. Courtwright* case and the Nov. 14, 1988, decision in the Hanlon *et al. v. Barton et al.* case. The decisions in these two cases provide direction to the U.S. Forest Service on what must be in an EIS and how Sec. 810 evaluations and determinations need to be conducted. The purpose and direction of the SEIS2 is difficult to understand without reference to these documents.

Although the appendices do not include these vital documents, they do reproduce the affidavits collected by Mr. James F. Clark, an attorney working for pro-logging interests, by Mr. E. Bud Stewart, stockholder and president of Whitestone Logging, Inc., Mr. Steve D. Seley, Jr., president of Wrangell Forest Products, Ltd., and Mr. Bobby G. Allensworth, manager of the Alaska Pulp Corporation pulp mill in Sitka (Appendix A-4). Other affidavits and other court documents presenting conflicting information on the same topics were also submitted to the court but are not reproduced.

Subsistence

At the request of U.S. Forest Service, ADF&G staff in the Southeast Region have spent a great deal of time over the past years developing a suggested procedure for conducting ANILCA Sec. 810 evaluations and determinations and in providing U.S. Forest Service with department data. Our letter to Steve Brink, TLMP Team Leader, of May 22, 1989, (copy attached) is the most recent articulation of our position.

An adequate 810 evaluation and determination calls for the following straight-forward tasks or procedures:

1. Assembling and presenting best available data on subsistence; identifying crucial data gaps. This is the primary baseline or inventory analysis that needs to be presented in the EIS.
2. Evaluating whether or not the proposed activity may significantly restrict subsistence. This step determines on a site-specific basis whether alternatives *may significantly restrict* subsistence uses.
3. Holding hearings if the proposed activity may significantly restrict subsistence. In this step, data are presented by U.S. Forest Service in affected communities to a) validate site-specific determinations that alternatives *may significantly restrict* subsistence uses, b) examine if the planned logging, roading, or other land use activity are *necessary* as defined by law, and c) identify means of eliminating or mitigating impacts that *may significantly restrict* subsistence uses.
4. Finding other land for the activity that *may significantly restrict* subsistence uses or mitigating impact upon subsistence uses if the activity is found to restrict subsistence uses and be *necessary*.

The adequacy of the SEIS2 in these tasks will be discussed below.

1. Assembling and presenting best available data on subsistence.

- 237-59 Although the SEIS2 makes a slightly better effort at assembling and presenting best available data than in the original EIS, it is still incomplete. The bibliographies for the four volumes include very little of the available articles and reports relevant to subsistence uses in the study areas, none of the literature that provides a more general perspective on subsistence use of fish and game in Alaska, and nothing on Tlingit society and culture. The many days spent by Division of Subsistence staff with U.S. Forest Service planners are not cited, and the volumes of unpublished data that we supplied are neither used nor cited. Only a very limited amount of data from the Tongass Resource Use Cooperative Study (TRUCS) are included, and these are often mis-stated.

Although the team composition included some people with social science background, insufficient effort at understanding standard reference documents and socio-cultural data was spent on this document.

- 237-60 Although the four volume SEIS2 is a very lengthy document, the sections actually presenting data on subsistence are very thin:

about 7 pages for area 2,
8 pages for area 3,
9 pages for area 6,
and 7 pages for area 12.

Data presented in these short sections is wholly inadequate for making land use decisions that *may significantly restrict* the subsistence harvest and use of fish and game rural residents.

2. Evaluating whether or not the proposed activity may significantly restrict subsistence

- 237-61 The courts have ordered site-specific analysis of the impact of the various alternatives on subsistence uses and examination of cumulative impacts. These tasks are not done. General conclusions are presented in the place of site-specific substantive analysis.
- 237-62 The court-ordered standard *may significantly restrict* is not consistently applied. In the 3 pages in the area 2 volume that should be doing 810 evaluation and determination no clear standard is used, in the space of a few paragraphs we find:

access..... will not be affected
availability of berries will decrease
foreseeable activities may possibly restrict subsistence uses
will have no measurable effect on coho, chum....

Since meaningful analysis and 810 evaluation and determination has not been attempted in the SEIS2, we have little more on which to comment.

3. Holding hearings

- 237-63 The SEIS2 does not present data and analysis that delineate on a site-specific basis which alternatives may significantly restrict subsistence uses or detail what specific impacts can be expected. The summary section, p. v-viii does, however, call for 810 hearings to be held.

The SEIS2 does not provide either adequate data or analysis of the impacts of logging alternatives that *may significantly restrict subsistence uses* and does not describe what these impacts might be or where they will take place. Because the SEIS2 fails to do its main tasks, public testimony in scheduled 810 hearings will not be productive. Hearings based on the SEIS2 will be strictly procedural and without useful substantive content.

At minimum, the public needs to be shown on a site-specific basis the likely cumulative impacts of different logging alternatives on their subsistence uses and mitigation measures that could be implemented.

- 237-64 The SEIS2 is also an appropriate document in which U.S. Forest Service should describe the Sec. 810 hearing process. Many rural residents do not understand what Sec. 810 hearings are, why they are important, and what community input would be most effective.

- 237-65 4. Alternative land and mitigation. ANILCA Sec. 810 directs federal agencies to find other land for the activity that *may significantly restrict* subsistence uses or mitigating impact upon subsistence uses if the activity is found to restrict subsistence uses and be *necessary*. Substitution of other land for logging and mitigation measures are not discussed in the present SEIS2.

Page comments:

Analysis area 2.

- 237-66 iii The abstract states that the SEIS2 discusses site-specific environmental impacts. This was not done.

- 237-67 iii The abstract states that, "Potential effects on subsistence were evaluated. None of the action alternatives will result in significant effects of subsistence use. The analysis concludes long-term cumulative effects of reasonably foreseeable activities may possibly restrict subsistence use." Therefore 810 hearings will be held.

In our review we did not find that potential effects were evaluated nor that long-term cumulative effects were shown.

- 237-68 iii The U.S. Forest Service recommendation of Alternative 3, calling for the maximum harvest area and harvest amount does not appear to be based on data presented in the EIS and definitely is not based on subsistence considerations.
- 237-69 vii The SEIS2 proposes a number of monitoring activities but will not monitor subsistence. Monitoring of impact on subsistence uses needs to be undertaken in cooperation with ADF&G.
- 237-70 2-31 Alternative 1 claims are incorrect. Carry-over logging may have an impact. Parts of carry-over areas were found by the Division of Subsistence to be heavily used by Hoonah and Tenakee Springs residents; these data were given to Mr. Hank Newhouse in 1988.
- 237-71 2-31 Alternative 2 and 3 state there are no significant restrictions from proposed activities. Since adequate analysis has not been done, this conclusion is unfounded. It also does not use the *may significantly restrict* standard. Elsewhere in the SEIS2, cumulative effect that *may significantly restrict* subsistence uses is noted. The cumulative effect is the result of actions proposed under alternatives 2 and 3 and should be noted as such.
- 237-72 2-40 Tables appear to be for a 5 year period but are not labeled as such.
- 237-73 2-40 The economic comparison of alternatives relies heavily on an unpublished U.S. Forest Service draft paper. Data and analysis supporting the economic comparison are not presented and can not be evaluated.
- 237-74 2-40 Table 2-9 shows alternative 1 resulting in a negative volume of harvest of 6.6 MMBF. Does U.S. Forest Service intend to replant trees that have been already cut?
- 237-75 2-40 I was unable to find data showing cost to federal government for different alternatives, cost to state government for public services, cost for habitat rehabilitation, or cost for lost subsistence, fish and game, tourism, and recreational resources. Valid economic comparison must consider the impact of various alternatives on the affected regional economy and not only on the logging sector.
- 237-76 3- Data presentation is limited to about 7 pages, including a general boiler-plate table from TRUCS. No use has been made other existing TRUCS reports or of detailed Division of Subsistence survey data, Division of Subsistence unit descriptions and use intensity maps, and ADF&G subsistence salmon permit data. No description or analysis of the importance of subsistence to Hoonah residents is undertaken. Data presented are culturally insensitive to Tlingit Indians. Site-specific description is not done.
- 237-77 3-70 fig 3-15 graph needs to note that data are based on a sample.
- 237-78 3-71 fig 3-16 and 3-17 are nice but give us no data useful for the SEIS2 since they are for all of SE Alaska

- 237-79 3-71 fig 3-17 footnote incorrect, graph does not present economic data
- 237-80 3-72 states that U.S. Forest Service is providing site-specific subsistence evaluation in the SEIS2. This is not present.
- 237-81 3-72 the SEIS2 refers to *primary-use subsistence community* as opposed to communities with occasional use. We have no idea what this means and note that Elfin Cove is closer to many parts of Area 2 than Hoonah. Apparently Tenakee Springs is not the "primary-use subsistence" for VCUs 222 and 223, areas close to Tenakee Springs, bordering the inlet.
- 237-82 3-74 fig 3-18 other mammals should probably be marine mammals
- 237-83 3-74 fig 3-19 Data in this graphic are inaccurate. No use at all is shown in VCUs 198 and 199, two VCUs closest to and most heavily used by Hoonah. No shellfish from the best intertidal area near Hoonah in VCU 200. Throw this out or use real data!
- 237-84 3-74 fig 3-20 Incorrect as fig 3-19; error in drawing as well. Text that describes these two graphics is incorrect.
- 237-85 3-76 Analysis is incomplete. The table shows that Hoonah deer harvest has gone down in 1987. Number of days needed to harvest a deer has gone from 1.7 in 1985 to 4.3 in 1987. Local deer hunters harvested 58% of deer harvested in 1985 and only 41% of deer harvested in 1987. These would appear to be significant changes.
- 1988 data, which have been available for months, are not included. These data might confirm the 1985-1987 trend.
- 237-86 4-38 repeats the *primary use/occasional use* community distinction. This distinction has no basis.
- 237-87 4-38 4-39 Understates logging camp activity in area 2. Logging has put people in Salt Lake Bay in 1989 and may add people elsewhere in area 2. Whitestone camp near Hoonah has logged in area 2 during the 86-90 time period.
- 237-88 4-39 The no-action alternative appears to include carry-over timber. If any logging is taking place under an alternative, the effects on subsistence must be discussed.
- 237-89 4-39 SEIS2 claims that access would not be affected. Log transfer facilities, increased boat traffic connected with logging, log rafting areas, and changes in roading all may change access. Environmental consequences are not discussed.
- 237-90 4-39 SEIS2 claims no increase in competition from log camp residents. Hoonah residents have told me that there are many more loggers present in areas they use in summer, 1989.
- 4-39 "primary subsistence use area for the seasonal logging camp at Eight Fathom Bight". Only Alaska residents of rural communities qualify for subsistence. Residents of seasonal logging camps may not meet state criteria.
- 4-39 "....no increase in competitionis expected from new residents" According to Hoonah residents, major increase in competition from logging camp residents has occurred.

237-91 4-40 ".....salmon spawning and rearing habitat....would have no measurable effect" The effect may not be measurable because U.S. Forest Service does not plan to monitor the anadromous streams of area 2 well enough to measure any effect!

237-92 4-40 4-41 "The Forest Service concluded the availability of crabs, clams, and other shellfish for subsistence harvest would not decrease." No evidence or discussion is presented for this or other conclusions in the environmental consequences section.

Same for herring roe and other fish. ADF&G has noted problems with herring roe for Hoonah residents.

237-93 4-65 SEIS2 states that "During the (TLMP) revision effort, the potential effects on subsistence users from the programmatic prescriptive resource use scheduling will be addressed." In our numerous meetings with the TLMP team we have never heard that TLMP will address the harvesting schedule.

cc. Rob Bosworth, Division of Subsistence, Juneau
Steve Behnke, Division of Subsistence, Juneau
Bob Wolfe, Division of Subsistence, Juneau

Memorandum

State of Alaska

Alaska Department of Fish and Game
Division of Subsistence

To:
Don Cornelius
Area Habitat Biologist
Habitat Division
Petersburg

Date: 28 July, 1989,

From:
Bob Schroeder
Division of Subsistence
Juneau

Subject: SEIS2

Thanks for giving me a bit more time to add further comments. The Division of Subsistence appreciates the competence and tenacity with which you approach the complicated task of organizing department comments on U.S. Forest Service planning documents.

This memo includes some additional comments on the draft Supplemental Environmental Impact Statement Phase 2. I suppose this is phase 2 of my comments on phase 2! I have been able to spend a short amount of time on the Executive Summary, a document I received on June 27, 1989, after I had written my earlier comments, and on the volume for study areas 3. I have read through the subsistence sections for volumes for study areas 6 and 12. My general comments on the SEIS2 stand for these volumes as well. As with the earlier set of comments, the following comments should be seen as indicative of Division of Subsistence concerns rather than an exhaustive review.

- 237-94 The generic points raised in my June 26, 1989 comments still stand. We continue to believe that public interest will be served and court stipulations met only if a site-specific analysis is performed. This has not taken place in the SEIS2. According to my notes, Mr. Pierce stated in our July 20, 1989, meeting that this was not done because of concerns raised at a meeting with the TRUCS Native Advisory Committee on May 5 concerning review of subsistence maps. As I indicated at that time, I did not recall that such a request was made by the Native Advisory Committee at that time, and we had no indication that U.S. Forest Service substantially changed its approach for the SEIS2 following this meeting. Mr. Loescher's correspondence with U.S. Forest Service, copies attached, indicate some of the concerns of the Native Advisory Committee.
- 237-95 We also stand behind our May 22, 1989 letter presenting suggested procedures for 810 evaluations and determinations. My comments do not repeat the detail of this letter.
- 237-96 Some use has been made of TRUCS mapped data for some communities. We would encourage further use of this data base once these mapped data have been reviewed and are final. We are concerned about the planning team use of raw data for planning decisions for two reasons. First, we do not believe that appropriate analysis of raw field data was done by the planning team. This is a task for trained researchers and analysts and must be well documented to meet research standards. Secondly, explicit commitments were made with people consenting to be interviewed, with the communities where surveying took place, and with the Native Advisory Committee by the TRUCS project management that mapped data would not be used before community review took place; mapped data

EXHIBIT 4
p. 1 of 3

237-96 used in the SEIS2 has not been subject to this review. Use of raw data before it has been objectively
Cont. analyzed, reviewed, and preferably published is highly questionable. Division of Subsistence has been consistently on record over the life of the TRUCS project that planning use of raw mapped subsistence data should not take place. Note the concerns of Mr. Loesch, writing on behalf of the Native Advisory Committee, related to the premature use of the TRUCS mapped data.

237-97 Use of photos were appreciated by this reviewer. Pictures should be credited to sources; people appearing in photos, particularly Native elders, should be identified.

Executive Summary.

237-98 We commend U.S. Forest Service for providing this summary which has potentially provides the public with a more accessible overview of material in the 4 volume set. The summary, however, is not closely referenced to the main text and frequently appears to *summarize* conclusions that are not stated in the volumes for study areas 2, 3, 6, and 12.

237-99 Table aa2-1 Because of flaws noted in our comments on the study area 2 document, the conclusions listed in this table are questionable. No site-specific analysis or conclusions are presented. The table states that study area 2 is *not a highly used subsistence area* and concludes that *no significant restriction from proposed activities* results from the action alternatives 2 and 3.

237-100 Data are not presented in the study area 2 document that support this summary. Data that conflict with these conclusions were supplied to U.S. Forest Service but are not referenced or included. Locations close to Hoonah that are among those most heavily used for subsistence are included in this study area. In addition to Native Corporation land directly across from Hoonah, Mud Bay, Neka Bay, Salt Lake Bay, and Eight Fathom Bight/Upper Port Frederick have been shown to be very important subsistence use areas in this study area. Mapped and quantitative data from Division of Subsistence studies in Hoonah and Tenakee showing intensity of use of subunits of this study area were supplied to Mr. Newhouse early in the planning process. Major logging and roading activities are anticipated under the SEIS2 in these very areas.

237-101 Table aaa3-1 The finding that, for all alternatives, *Implementation could potentially affect key subsistence wildlife species in a portion of AA3* does not provide an indication of where impacts might occur within study area 3. It also shows that alternative 2, No Further Harvest, meaning no logging or roading, will have the same impact as the different harvesting alternatives.

237-102 pg. 34, Issue 9. states that ADF&G minor harvest units 3523, 3524, 3525 and 3526 could be affected. No map is provided showing these units, which will make it difficult for the public to know which areas are affected. In checking with the Study Area 3 volume we found exclusive reliance on raw, unanalyzed TRUCS mapped data. This volume does not provide sufficient evidence to show that these are the only units affected or clearly state what the effects on subsistence may be.

pg. aa6-1 pg. 53, Issue 9, similar problem as above

aa12-1 table is unclear. Is there an impact that triggers the *may significantly restrict* criterion or not?

pg. 73 Issue 9. *effects....would be minimal* The standard should be *may significantly restrict* not *minimal*. As with the other volumes, the baseline data presented on subsistence and the subsistence effects analysis are so thin in the study area 12 volume that conclusions concerning impact can not be made.

Study area 3 volume

237-103 pg 3-87 This volume repeats the primary-use subsistence communities vs occasional use communities distinction. This has no basis in fact.

237-104 pg. 3-89 Since trucs mapped data used here have not been subject to either researcher or community review, their use here is inappropriate.

I attended the only review of TRUCS maps for Hoonah and Tenakee held to date, in sparsely attended community meetings in Hoonah on June 15 and Tenakee on June 16, 1989 (field report attached, U.S. Forest Service has not provided notes for these or other review meetings held). In the review in both of these communities, maps were found to contain plotting or cartographic error. We also found that maps appeared to have substantive errors in some areas. Both the technical problems with maps for these communities and the substantive errors must be carefully corrected before they are presented as research products in an official document.

237-105 pg. 3-22 40% of the food supply. We do not know how this figure was derived.

237-106 4- conclusions are not supported by data.

237-107 4-64 no increase in competition for resources from residents at logging camps is anticipated. Residents in this area report a marked increase in active camps and more loggers in this study area in 1989. Why has the plan not anticipated this?

cc. Rob Bosworth, Division of Subsistence, Juneau

Steve Behnke, Division of Subsistence, Juneau

Bob Wolfe, Division of Subsistence, Juneau

What is the likely effect on overall subsistence harvest levels and composition of subsistence harvest of different management alternatives?

What is the effect on subsistence in affected communities of the establishment of long term logging camps; is harvest competition an important factor?

What is the likely long term effect on deer harvest of different management alternatives, given deer population sensitivity to habitat change and climatic variation?

How do expected snow depth, distance from a subsistence community, presence of roads, community economy, community ethnicity, community population structure, and other factors influence the affect of management alternatives?

What management alternatives are most likely to result in significant restrictions to subsistence harvesting?

If Forest Service is unable to address questions like the above, they have made no real headway in evaluating the impact of management alternatives on subsistence and are no closer to being able to make 810 evaluations and determinations than they were before the Tenakee law suit. This situation is all the more frustrating, since most of these questions are answerable to hardworking research with available data.

Specific comments.

1. Overall the document is well written with a polished final production. The subsistence photos are well done and make the text more readable. The planning team should be commended for its work.

2. Planning team expertise. Unfortunately none of the 16 listed preparers of the document is a specialist in subsistence use of fish and game or has background or training in social science, research in subsistence communities, or the social impact of technological change. Many such individuals exist both within the Forest Service and in other government and private agencies in Alaska. Since this supplement is being prepared in part to address subsistence questions and to make 810 evaluations and determinations, neglecting to include even one person with necessary expertise as a preparer is a serious defect. Would Forest Service put out a document on forest management without including a forester as a preparer?

Planning team member, Hank Newhouse contacted the Division of Subsistence and made good use of subsistence maps for Angoon, Kake, Hoonah, Sitka, and Tenakee that we gave him. His effort, however, did not make up for fundamental deficiencies in team composition and expertise.

3. 810. Most glaringly, the document does not do the primary thing it is supposed to do. In Mr. Barton's letter of intent submitted on 9/30/87 (see A-5) it is stated that "this phase will provide an updated Section 810 Alaska National Interest Lands Conservation Act (ANILCA) evaluation and determination, regarding alternatives considered in this phase for the entire study" (quoted from the original). The present draft does not do this but states, "A preliminary determination of whether a significant restriction upon subsistence uses may result from implementation of any alternatives considered in detail in the Supplement process will be included in the Phase II Draft EIS". Will we ever get 810 evaluations and determinations as required by ANILCA?

20 July, 1989, page 2

EXHIBIT 5
p. 2 of 5

4. Timing. The letter of intent projects a date of issuance for this document of May, 1988; it came out in late Aug., 1988. Phase II is to be out no later than Dec., 1988. Both phases are expected to be completed 12 to 18 months after 9/30/88. The final for both phases is projected as May 1, 1989. The slippage of these dates vitiates any analysis that might be done since the 86-90 time period will almost be over before the supplements are final.

5. Subsistence harvest data. Very limited data on subsistence harvest of fish and game in four SE communities are presented in tables 4-13 to 4-17 with the same data also appearing in appendix J. Much better and more detailed data on subsistence harvests are available and were supplied to Forest Service by the Division of Subsistence. A minimal job of presenting subsistence harvest data would provide data summaries showing levels of harvest by species for all communities where such data exists.

At the time of the letter of intent data were available from Division of Subsistence studies for the communities of Angoon, Haines, Hoonah, Kake, Klukwan, Haines, Sitka, and Tenakee. Data for Gustavus, Edna Bay, and some other communities were available from Forest Service and Fish and Game Advisory committee reports.

Harvest data for each of 30 SE subsistence communities from the Tongass Resource Use Cooperative Study, TRUCS, a major cooperative study of subsistence funded by Forest Service and conducted jointly by the University of Alaska, Institute of Social and Economic Research and the Division of Subsistence has been available since June, 1988.

For some unknown reason these data are poorly reported in this document which should use best available data. The final of this document should accurately report best available harvest data by community.

6. Deer and salmon harvest. In addition to harvest data from subsistence studies, diachronic data on deer harvest and harvest effort by community are available from Game Division, ADF&G. Subsistence salmon harvest data based on subsistence permits by species and community are available from the Division of Commercial Fish, ADF&G. These data should be reported.

7. Personal use. The document generally refers to *subsistence harvests* or *subsistence use as personal harvest* or *personal use* (cf 4-17, 4-18). Sometimes it lumps in recreational hunting, fishing, crabbing, and subsistence uses (cf 4-21). These are not the same thing at all, and the usage in the document is confusing in light of ANILCA, the State of Alaska subsistence law, and fish and game regulations.

7. Subsistence mapped data. Tables 3-5 through 3-12 show subsistence use of 7 communities by species by Value Comparison Unit. Data for Angoon, Kake, Hoonah, Sitka, and Tenakee are from major studies conducted by the Division of Subsistence using standard subsistence mapping methodologies. Data for Pelican are probably from the Coastal Management Plan and are based on an unknown methodology. These data need to be properly cited to source.

Data for Port Alexander and Point Baker/Port Protection may be from Forest Service studies and appear to be in error. Port Alexander was visited by Forest Service staff for two days, Sept. 30 and Oct. 1, and a map was prepared based on interviews held on those two days; given this uncertain methodology, the very preliminary, unpublished, unreviewed, and uncirculated data from this two day visit should not be taken as the last word on Port Alexander subsistence nor be used in this document. According to Table 3-11 Port Alexander residents only hunt and fish in a few VCUs on Kuiu Island; they do no harvesting anywhere nearer to home on Baranof Island. In fact, the USFS trip report for Port Alexander (Nov. 1987) that was used to provide the DEIS data indicates that only three people from Port Alexander completed a subsistence questionnaire and also states that subsistence uses by

20 July, 1989, page 3

EXHIBIT 5
p. 3 of 5

members of that community were not confined to Kuiu Island but include portions of Baranof Island as well. Similarly the Point Baker/Port Protection subsistence use is shown in table 3-12 is restricted to a small number of VCU's on Kuiu Island. Other hunting areas for Port Alexander, Point Baker/Port Protection are recognized by the Alaska Board of Game, and we know members of these fishing community harvest in other VCU's.

Maps showing subsistence use by species for each community should be in the final.

Map 4-1 and tables 4-18 through 4-33 are confusing. From the depictions I can not determine what communities are represented or what data sources were used. Since only a small number of the communities in SE are represented, map 4-1 is low on meaning; dark areas are not necessarily used more or by more communities than light areas. The map and tables should be dropped.

At the time of the letter of intent, maps showing the extent of subsistence use by species were available from Division of Subsistence studies for only six communities--Angoon, Hoonah, Kake, Klawock, Sitka, and Tenakee. Intensity of use data, showing the percentage of surveyed households using each portion of the subsistence harvest territory are also available for five of these communities (not for Sitka). These intensity of use data should be reported.

Mapped data for all SE subsistence communities were collected as part of the TRUCS subsistence study. Maps based on these data will be ready later this year and should be used in the final for communities where Division of Subsistence has not been supplied.

8. Data sources. The sources for subsistence data consulted by the team and listed in appendix J includes only 21 references many of which are to personal communications and unpublished documents and some of which are on deer ecology. Given the bookshelf of published material on subsistence and SE Tlingit communities, relying on these few sources does not make best use of available data.

9. Analysis procedure. The document states that it followed the Forest Service Subsistence Management and Use Handbook (FSH 2609.25) in analyzing subsistence data (4-17). In my reading this 810 handbook does not provide detailed direction as to what data sources need to be examined and how an evaluation and determination might take place.

I would suggest that the planning team review a) the Alaska Habitat Management Guide for the components of an adequate evaluation and determination (attached) and b) the procedure followed by the Alaska Boards of Fisheries and Game in making customary and traditional determinations. The document must state what data it chooses to consider and show how it reaches its conclusions with respect to 810 and subsistence.

10. Chapter 3, Affected Environment. The casual narrative presentation of important conclusions about subsistence harvesting in communities falls short of professional standards. Conclusions such as the following need to be supported by data:

The traditional and customary harvest of foods including deer, ducks, geese, berries, roots, salmon, halibut, shellfish, and bottomfish are integral to Hoonah's way of life.

Today, Angoon remains a gathering and hunting society.

Use of natural resources is traditional and significant throughout the year by the majority of (Tenakee) residents.

Pelican's main subsistence uses include deer hunting, trapping furbearers, waterfowl, fishing, and shellfish gathering.

Deer hunting is the only known subsistence use of the area by Petersburg residents.

The traditional subsistence uses by Kake residents include hunting for deer and waterfowl, fishing, trapping furbearers, and gathering shellfish.

Sitka residents hunt, fish, trap, gather shellfish, and gather berries for subsistence purposes.

Subsistence use by Elfin Cove residents is deer hunting, shellfish gathering, salmon trolling, and firewood gathering.

Today, many residents (Port Alexander) fish commercially and choose to live here because of the location and subsistence lifestyle.

(Point Baker/Port Protection) Many subsistence uses are deer, bear, waterfowl, shellfish, trapping furbearers, and gathering berries.

Subsistence harvest of fish and game by residents of Craig, Gustavus, Haines, Klawock, Skagway, Wrangell, Yakutat, and other SE communities may take place within the study area. The possible effect of timber management on their uses needs to be evaluated and a determination made as well as for the communities treated in Chapter 3.

CC. Rob Bosworth, Division of Subsistence, Juneau
Steve Behnke, Division of Subsistence, Juneau
Bob Wolfe, Division of Subsistence, Juneau

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
the T'Addeintaan Clan, VICTOR
BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
official capacity as Regional
Forester for the Alaska
Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civil

EXHIBITS FOR APPLICATION FOR
INJUNCTION PENDING APPEAL

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
the T'Addeintaan Clan, VICTOR
BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
official capacity as Regional
Forester for the Alaska
Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,
Intervenor-Defendant.

No. J88-025 Civil

PLAINTIFFS' EXHIBIT 49

AFFIDAVIT OF VANCE A. SANDERS

Alaska Legal Services Corporation

Vance A. Sanders
Mark Regan
419 Sixth Street, Suite 322
Juneau, Alaska 99801
(907) 586-6425

Carol H. Daniel
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Anchorage, Alaska 99501
(907) 276-6282

Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually and as Chief
of the Wooshikitaan Clan, RICHARD
SHEAKLEY, SR., Individually and as Chief of
the TAddeintaan Clan, VICTOR BEAN,
RICHARD BEAN, JR., ERNESTINE HANLON,
GEORGE WESTMAN, and DOUGLAS GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his official capacity as
Regional Forester for the Alaska Region,
DALE ROBERTSON, in his official capacity as
Chief of the United States Forest Service,
RICHARD LYNG, in his official capacity as
Secretary of Agriculture, and the
UNITED STATES FOREST SERVICE, an
agency within the Department of Agriculture,

Defendants,

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civ.

AFFIDAVIT OF
VANCE A. SANDERS

STATE OF ALASKA)
) ss.
FIRST JUDICIAL DISTRICT)

VANCE A. SANDERS, being duly sworn, states:

1. I am an attorney of record for plaintiffs in this action.

2. On December 12, 1988, the parties in this case held a settlement negotiation. Plaintiffs requested interim suspension of timber development in VCUs 209, 210 and 212 but the Alaska Pulp Corporation did not agree to that request.

3. At this meeting, I learned from attorneys for the Forest Service that the Forest Service was planning to hold "810 hearings" in response to this Court's order and in conjunction with the production of a Supplemental Environmental Impact Statement growing out of the *City of Tenakee Springs v. Courtright* litigation. The Forest Service attorneys said that the "target date" for production of the SEIS -- in which any findings under Section 810 would be made -- was May, 1989, but that they could not state with confidence that the final SEIS would be issued then and not later in the year. To my knowledge, the "810 hearings" for the Hoonah area have not yet formally been scheduled.

4. Later that day, I spoke to Jim Clark, the attorney for the Alaska Pulp Corporation, about the status of APC's 1989 annual logging plans. Mr. Clark informed me that APC's 1989 logging plans were not yet available but that the company intended to continue timber development on Northeast Chichagof Island.

5. Mr. Clark informed me that APC's contractor in the Whitestone area planned to shut down its operations within a few days of our conversation and reopen in early to mid-February. He advised me that operations in February would begin in VCU 210 (units 4, 5, 6 and 7) and continue down the road that runs into VCU 212. He also advised me that operations would begin in VCU 209 (units 27, 29 and 30) as soon as the snow melted there.

6. In order to obtain official information about APC's 1989 logging, I contacted the Forest Service's attorney, Alan Campbell. On January 5, 1989, Mr. Campbell informed me that APC's annual logging plan had been submitted to the agency's Sitka office the previous week but had not yet been approved or reviewed by the agency's Juneau office. He stated that he was not sure when that plan would be finalized and available for public disclosure and review.

DATED at Juneau, Alaska, this 11th day of January, 1989.

Vance A. Sanders
VANCE A. SANDERS

SUBSCRIBED and SWORN TO before me
this 11th day of January, 1989, at
Juneau, Alaska.

[Signature]
Notary Public

My commission expires: 10-10-92

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
the T'Addeintaan Clan, VICTOR
BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
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Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civil

LAW OFFICES OF
ALASKA LEGAL SERVICES CORPORATION
ANCHORAGE AND STATEWIDE OFFICE
1016 WEST SIXTH AVENUE, SUITE 200
ANCHORAGE, ALASKA 99501
(907) 276-6282

PLAINTIFFS' EXHIBIT 50

MAP: STATUS OF 1981-86 AND 1986-90 PLANS ON NOVEMBER 23, 1988

STRAIT

2100

217C

2120

215

False Bay

END OF Rubric

Shwater

LEGEND

- INFORMATION DISPLAYED IS CURRENT
- VALUE COMPARISON UNIT BOUNDARY
- EXISTING CUTTING UNIT *Partially Harvested*
- PREVIOUSLY PLANNED CUTTING UNIT **U**
- PROPOSED CUTTING UNIT (86-90 PERIOD) **1**
- EXISTING ROAD *Gravel to 9/7/86*
- PREVIOUSLY PLANNED ROAD *not constructed*
- PROPOSED ROAD (86-90 PERIOD) *not constructed*
- Existing Cutting Unit Logging Completed*
- AREAS THAT WILL BE MANAGED TO PROVIDE OLD GROWTH HABITAT CONDITIONS
- EXISTING TERMINAL TRANSPORTATION FACILITY
- PREVIOUSLY PLANNED TERMINAL TRANSPORTATION FACILITY
- PROPOSED TERMINAL TRANSPORTATION FACILITY
- HARVEST UNIT NUMBER **86**
- SPECIAL USE PERMIT **86**
- MINING CLAIM **86**
- PRIVATE LAND **86**
- WITHDRAWAL **86**
- STATE SELECTION **86**
- NATIVE ALLOTMENT **86**
- NATIVE SELECTION **86**

NOTE: NO HARVEST OR OTHER APPROPRIATE REVISIONS TO MAINTAIN OLD GROWTH HABITAT CONDITIONS WILL APPLY DURING THE 86-90 PERIOD. REVISIONS TO THE 86-90 PERIOD WILL APPLY DURING THE 86-90 PERIOD. REVISIONS TO THE 86-90 PERIOD WILL APPLY DURING THE 86-90 PERIOD.

alter Bay

Scale: 1" = 2 1/2 Miles

5 Miles

N

Tenakee Springs

Paulof River

Paulof Lake

Paulof Hbr

Wachusett Cove

Bay

Cove

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
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BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
official capacity as Regional
Forester for the Alaska
Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,
Intervenor-Defendant.

No. J88-025 Civil

PLAINTIFFS' EXHIBIT 51

1987-90 APC LOGGING PLAN

1003	27.6	29047	17.32	0.00	1067970
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	602	29.1	17510	0.14	2.60	0
1	18	18	18	18	18	18
2	18	18	18	18	18	18
3	18	18	18	18	18	18
4	18	18	18	18	18	18
5	18	18	18	18	18	18
6	18	18	18	18	18	18
7	18	18	18	18	18	18
8	18	18	18	18	18	18
9	18	18	18	18	18	18
10	18	18	18	18	18	18
11	18	18	18	18	18	18
12	18	18	18	18	18	18
13	18	18	18	18	18	18
14	18	18	18	18	18	18
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26	18	18	18	18	18	18
27	18	18	18	18	18	18
28	18	18	18	18	18	18
29	18	18	18	18	18	18
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36	18	18	18	18	18	18
37	18	18	18	18	18	18
38	18	18	18	18	18	18
39	18	18	18	18	18	18
40	18	18	18	18	18	18
41	18	18	18	18	18	18
42	18	18	18	18	18	18
43	18	18	18	18	18	18
44	1					

ALT J	10	17	29.1	360	05085	0.66	05-90	48154	AFC
12	35	29.1	495	05084	0.43	05-90	34593	AFC	
19	23	29.1	1019	05086	0.30	01-05	36172	AFC	
25	28	29.1	669			01-05			
31	21	29.1	015			01-95			
33	37	29.1	611			01-95			
**72	8	29.1	1077			06-90			
**73	16	29.1	233			06-90			
74	9	29.1	466			06-90			
75	10	29.1	262			06-90			
76	12	29.1	291			05-90			
79	12	29.1	370			06-90			
**137	67	29.1	349			06-90			
142	83	29.1	1950			01-65			
**143	90	29.1	2415			01-55			
176	20	29.1	2619			01-05			
177	8	29.1	582			01-05			
179	17	29.1	233			01-05			
			485			01-05			

616 29.1 17926 4.17 2.30 416765

1987

MILITESTORE
SUNTHIAEEN

Unit	Acres	White	Vol.	Red	Misc	Miles	Eib	Red	Cost	By
10J	51	29.1	1484	**0531	2.46	1.73	06-90	215615		APC
**136160	53	29.1	1542	05312	1.60		06-90	163070		AFC
15J	20	29.1	582	05313	0.71		06-90	122455		AFC
16J	45	29.1	1310	05312	0.50		06-90	51970		AFC
**19619J	99	29.1	2801	05307	0.61		06-90	44357		APC
20J	22	29.1	640				06-90			
5A	19	29.1	553				06-90			
58	20	29.1	582				06-90			
5	47	29.1	1360	053071	0.60		01-05	63958		AFC
**6	75	29.1	2183	05300	0.30		01-05	31930		AFC
7	13	29.1	370	05309	0.61		01-05	47365		AFC
8	38	29.1	1106	05308	0.70		01-05	66119		AFC
9	61	29.1	1775	053091	0.30		01-05	31930		AFC
12	41	29.1	1193				01-05			
14	50	29.1	1455				01-05			
15	39	29.1	1135				01-05			
16	40	29.1	1164				01-05			
18	95	29.1	2765				01-05			

820 29.1 24095 0.47 1.73 906769

0111	34	29.1	909		01-05
0153	23	29.1	669		01-05
0155	17	29.1	495		01-05
0157	41	29.1	1193		01-05
0158	18	29.1	524		01-95
00159	45	29.1	1310		01-05

GRAND TOTAL

315	29.1	9167	0	1.43	0
4046		116071	46.24	10.66	3191504

NOTE: ALL SPYRS CONSTRUCTED BY APC
 * UNITS COMPLETED
 ** UNITS PARTIALLY COMPLETED
 *** UNITS ACCESSED
 * ROADS CONSTRUCTED
 ** ROADS PARTIALLY CONSTRUCTED

WHITESTONE

SUMMITTAEH
(R209)

215-6	42	29.1	1222			86-90	
215-7	26	29.1	757			86-90	
215-9	45	29.1	1310			86-90	
1	80	29.1	2328			86-90	
80	21	29.1	611			86-90	
81	15	29.1	437			86-90	
148	97	29.1	2823			81-85	
149	35	29.1	1019			81-85	
150	48	29.1	1397			81-85	
160	66	29.1	1921	8610	2.73	81-85	USFS
180	20	29.1	582	86101	1.34	81-85	USFS
182	12	29.1	349	86102	0.5	81-85	USFS
183	22	29.1	640	8509	5.00	81-85	USFS

710 29.1 22407

11.37

3.50

185400

MISC 4.00

1988

(R210)

211	34	29.1	989			86-90	APC
291	67	29.1	1950			86-90	APC
301	38	29.1	1106			86-90	APC
24	65	29.1	1892			81-85	APC
26	32	29.1	931			81-85	APC
27	46	29.1	1339	8534	2.10	81-85	APC
29	45	29.1	1310	85361	0.90	81-85	APC
30	53	29.1	1542	8535	1.50	81-85	APC
31	38	29.1	1106	85351	1.00	81-85	APC
32	40	29.1	1164	8537	2.50	81-85	APC
33	56	29.1	1630	85371	1.70	81-85	APC
34	25	29.1	728	853712	0.50	81-85	APC
210-1	85	29.1	2474	85372	0.60	86-90	APC
210-2	54	29.1	1571			86-90	
210-3	143	29.1	4161			86-90	
210-4	100	29.1	2910	8530	6.00	86-90	USFS
210-5	29	29.1	844			86-90	
210-7	126	29.1	3667			86-90	
209-17	47	29.1	1368			81-85	
209-25	47	29.1	1368			81-85	
209-28	51	29.1	1484			81-85	

Game Creek (204)

1221 29.1 35531

16.8

4.00

1152371

APC

GRAND TOTAL

3866

112501

58.99

12.80

3860925

1988

1989

OPERATOR AREA	AREA	UNIT NO.	ACRES	VOL/AC.	VOL.	ML ROAD	MILES	SP ROAD	MILES	EIS	ROAD COST CONST. BY
AFC LOGGISO4	ROHAN BAY	2	15	29.1	437	6408	1.00	MISC	5.00	06-90	109973 APC
	(8419)	3	51	29.1	1484	6403	0.78			06-90	87601 APC
		4	37	29.1	1077	6402	4.30			06-90	539632 APC
		5	64	29.1	1862	6493	3.00			06-90	816506 APC
		7	29	29.1	844	46202	1.50			06-90	184690 APC
		8	90	29.1	2619	6479	1.16			06-90	123245 APC
		9	137	29.1	3987	6480	1.41			06-90	149223 APC
		10	100	29.1	2910	6487	0.70			06-90	76980 APC
		11	73	29.1	2124					06-90	
		157	26	29.1	757	6402	5.54			06-90	USFS
		242	64	29.1	1862					06-90	
		243	17	29.1	495					06-90	
		244	55	29.1	1601					06-90	
		245	88	29.1	2561					06-90	
		246	32	29.1	931					06-90	
		247	41	29.1	1193					06-90	
	(8418)	1	201	29.1	5849					06-90	
		5	51	29.1	1484					06-90	

1171

36076

19.39

5.00

2007850

10	25	29.1	728	7521	0.10	06-90	132811	APC
11	10	29.1	291			06-90	61600	
12	35	29.1	1019			06-90		
13	50	29.1	1455			06-90		
14	15	29.1	437			06-90		
15	8	29.1	233			06-90		
16	43	29.1	1251			06-90		
17	7	29.1	204			06-90		
18	10	29.1	291			06-90		
26	35	29.1	1019			06-90		
223	54	29.1	1571			01-85		
224	39	29.1	1135			01-85		
225	50	29.1	1455			01-85		
226	55	29.1	1601			01-85		
227	13	29.1	378			01-85		
228	23	29.1	669			01-85		
230	6	29.1	175			01-85		
231	8	29.1	233			01-85		
232	50	29.1	1455			01-85		
233	20	29.1	582			01-85		
234	9	29.1	262			01-85		
235	9	29.1	262			01-85		
236	15	29.1	437			01-85		
237	5	29.1	146			01-85		
238	6	29.1	175			01-85		
239	5	29.1	146			01-85		

678 29.1 19730

4.38

3.00

559393

PATTERSON

214-10	26	29.1	757	86-90
214-20	56	29.1	1630	86-90
215-12	62	29.1	1804	86-90
215-13	43	29.1	1251	86-90
213-7	58	29.1	1688	86-90
184	23	29.1	669	81-85
185	69	29.1	2008	81-85
186	46	29.1	1339	81-85
188	69	29.1	2000	81-85
190	70	29.1	2037	81-85
			7601	4.60
			519910	APC

MILLESTONE

SUNTHAECH
(#210)

210-6	123	29.1	3579	8530	5.30	MISC	5.00	86-90	545900	APC
210-9	89	29.1	2590	85381	1.30			86-90	142827	APC
210-10	90	29.1	2619	8530	2.50			86-90	218000	APC
210-11	55	29.1	1601					86-90		
210-12	144	29.1	4190					86-90		
210-13	59	29.1	1717					86-90		
210-14	121	29.1	3521					86-90		
210-15	144	29.1	4190					86-90		
210-16	53	29.1	1542					86-90		
210-17	28	29.1	815					86-90		
210-18	39	29.1	1135					86-90		
210-8	150	29.1	4365					86-90		
212-33	40	29.1	1164					86-90		
204-97	62	29.1	1804	8502	7.41			81-85	778260	APC
204-96PC	27	29.1	786							

1988

31.9
1.2

GRAND TOTAL

1224	29.1	35618	16.51	5.00	1684987
3846	111919	49.95	15.00	5208080	

AREA	UNIT NO.	ACRES	VOL./AC.	VOL. ML	ROAD MILES	SP ROAD MILES	EIS	ROAD COST CONST. BY
AREA								

AREA	AREA	UNIT NO.	ACRES	VOL./AC.	VOL.	ML ROAD	MILES	SP ROAD	MILES	EIS	ROAD COST	CONST. BT
504	ROHAN BAY (#417)	1	83	29.1	2415	6442	2.63	MISC	5	86-90	266502	APC
		2	62	29.1	1804	6493	4.97			85-90	668539	APC
		3	57	29.1	1659	46203	1.40			86-90	153962	APC
		4	50	29.1	1455	6485	1.20			86-90	139404	APC
		5	10	29.1	291	6484	1.04			86-90	129406	APC
		10	51	29.1	1404	6457	3.07			86-90	406900	APC
		11	100	29.1	2910					86-90		
		12	94	29.1	2735					86-90		
		13	60	29.1	1746					86-90		
		15	80	29.1	2328					86-90		
		20	16	29.1	466					86-90		
	(#418)	3	129	29.1	3754					86-90		
		6	102	29.1	2968					86-90		
		7	31	29.1	902							
		9	100	29.1	3143							
1033				29.1	30060.3		14.31			5.00	1764712	

(0237)

5	5	29.1	175	05-90
6	44	29.1	1280	06-90
20	8	29.1	233	06-90
22	24	29.1	698	06-90
24	6	29.1	175	06-90
205	19	29.1	553	01-05
206	6	29.1	175	01-05
207	3	29.1	07	01-05
209	15	29.1	437	01-05
210	8	29.1	233	01-05
211	8	29.1	233	01-05
214	6	29.1	175	01-05
215	7	29.1	204	01-05
216	13	29.1	378	01-05
217	4	29.1	116	01-05
220	38	29.1	1106	01-05
221	11	29.1	320	01-05
222	13	29.1	378	01-05
13	41	29.1	1193	06-90
14	25	29.1	788	06-90
91	23	29.1	669	06-90
94	27	29.1	786	06-90
95	22	29.1	640	06-90
96	11	29.1	320	06-90
98	43	29.1	1251	06-90
99	16	29.1	466	06-90
192	27	29.1	786	01-05
193	20	29.1	582	01-05
195	17	29.1	495	01-05
196	48	29.1	1397	01-05
199	23	29.1	609	01-05
139	11	29.1	320	01-05
200	16	29.1	466	01-05
201	16	29.1	466	01-05
202	13	29.1	378	01-05
203	14	29.1	407	01-05
204	8	29.1	233	01-05

012

29.1

23629

11.25

3.00

706011

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
the T'Addeintaan Clan, VICTOR
BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
official capacity as Regional
Forester for the Alaska
Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civil

PLAINTIFFS' EXHIBIT 52

AFFIDAVIT OF JOHN W. SCHOEN

LAW OFFICES OF
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Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually and as Chief
of the Wooshikitaan Clan, RICHARD
SHEAKLEY, SR., Individually and as Chief of
the TAddeintaan Clan, VICTOR BEAN,
RICHARD BEAN, JR., ERNESTINE HANLON,
GEORGE WESTMAN, and DOUGLAS GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his official capacity as
Regional Forester for the Alaska Region,
DALE ROBERTSON, in his official capacity as
Chief of the United States Forest Service,
RICHARD LYNG, in his official capacity as
Secretary of Agriculture, and the
UNITED STATES FOREST SERVICE, an
agency within the Department of Agriculture,

Defendants,

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civ.

AFFIDAVIT OF
JOHN W. SCHOEN

STATE OF ALASKA)
) ss.
FIRST JUDICIAL DISTRICT)

John W. Schoen, being duly sworn, states:

1. I am a Research Biologist for the State of Alaska's Department of Fish and Game, and co-author of a 1985 study on seasonal distribution and habitat use by Sitka black-tailed deer in Southeastern Alaska.

2. On January 6, 1989, I flew over northeastern Chichagof Island. On January 9, 1989, I wrote a memorandum to my supervisor, Dave Anderson, describing what I had seen and predicting declines in the deer population, in accordance with the findings of our 1985 study, if these conditions continued. This memorandum is attached. Before signing this affidavit, I have reviewed the memorandum, and am satisfied that the observations it makes are accurate and the predictions it makes are justified by those observations.

DATED this 10 day of January, 1989, at Juneau, Alaska.



JOHN W. SCHOEN

SUBSCRIBED and SWORN TO before me
this 10th day of January, 1989, at
Juneau, Alaska.



Notary Public
My commission expires: 10-11-92

LAW OFFICES OF
ALASKA LEGAL SERVICES CORPORATION
410 SIXTH STREET, SUITE 322
JUNEAU, ALASKA 99801
(907) 586-6425

MEMORANDUM


State of Alaska
Department of Fish and Game

To: Dave Anderson
Regional Supervisor
Wildlife Conservation

Date: 9 Jan 1989

File:

Telephone:

From: John Schoen 
Research Biologist
Douglas

Subject: Chichagof Deer

On the afternoon of 6 January 1989, I flew the snow transects around Robert Barron Peak on northern Admiralty Island. On the northern exposure, measured snow depths were 5 ft (2500 ft elev), 3 ft (1500 ft elev), 2+ ft (500 ft elev), and 1 ft (100 ft elev). On the southern exposure, measured snow depths were 4 ft (2500 ft elev), 2.5 ft (2000 ft elev), 1.5 ft (1000 ft elev), and 1 ft (500 ft elev). General observations indicated that there was continuous snow cover all the way down to sea level including the upper beach area. Few deer tracks were observed above 1000 ft elevation.

Following completion of the Admiralty snow surveys, I flew across Chatham Strait to check general snow conditions on northeastern Chichagof in relationship to the recent timber harvesting activities from the vicinity of False Bay northwest to Whitestone Harbor and Spasski Creek. As on northern Admiralty, there was continuous snow cover all the way down to sea level. The open clearcuts were full of snow with most vegetation covered. It appeared that there was little vehicle traffic on the roads suggesting snow depths sufficient to prohibit travel. My aerial observations of this area, in combination with the measured snow depths on adjacent Admiralty, suggest that much of the area including muskegs, scrub forest, and clearcuts are currently unusable as winter deer habitat.

If the current snow conditions should persist or accumulate through March, I predict there will be a major winter kill of deer in this region (northeastern Chichagof). During the moderately harsh winter of 1982 (with continuous snow cover on the ground from January through March with a maximum of 3 ft at sea level), data from radio-collared deer indicated the winter mortality on northern Admiralty to be in excess of 60 percent. This was in an area with no timber harvest. In contrast, on northeastern Chichagof, much of the critical winter deer habitat (high-volume [> 30 mbf/acre] old-growth forest below 1000 ft elevation) has been harvested. The open-canopy clearcuts which now occur accumulate much

greater snow depths than old-growth forest and consequently are very poor winter habitat for deer under moderate to deep snow conditions. I expect declines in the deer population of at least 50 percent if current conditions persist and perhaps much greater if conditions worsen and/or persist beyond March. Such declines would have significant implications for sport or subsistence deer hunting in that area the following year. Hunter success would decline and seasons and bag limits would likely need revision.

cc Butch Young
Dave Johnson
Matt Kirchhoff

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
the TAddeintaan Clan, VICTOR
BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
official capacity as Regional
Forester for the Alaska
Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civil

PLAINTIFFS' EXHIBIT 53

AFFIDAVIT OF ROBERT J. WOLFE AND ROBERT F. SCHROEDER

Alaska Legal Services Corporation

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Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually and as Chief
of the Wooshikitaan Clan, RICHARD
SHEAKLEY, SR., Individually and as Chief of
the TAddeintaan Clan, VICTOR BEAN,
RICHARD BEAN, JR., ERNESTINE HANLON,
GEORGE WESTMAN, and DOUGLAS GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his official capacity as
Regional Forester for the Alaska Region,
DALE ROBERTSON, in his official capacity as
Chief of the United States Forest Service,
RICHARD LYNG, in his official capacity as
Secretary of Agriculture, and the
UNITED STATES FOREST SERVICE, an
agency within the Department of Agriculture,

Defendants,

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civ.

AFFIDAVIT OF
ROBERT J. WOLFE
AND ROBERT F.
SCHROEDER

STATE OF ALASKA)
)ss.:
FIRST JUDICIAL DISTRICT)

Robert J. Wolfe and Robert F. Schroeder affirm the following:

1. Robert J. Wolfe is the Research Director, Division of Subsistence, Alaska Department of Fish and Game. Robert F. Schroeder is a Research Specialist III within the Division of Subsistence. Our resumes are attached to this affidavit.

2. The Division of Subsistence regional staff has worked closely with the U.S. Forest Service to help provide the data needed for adequate ANILCA Section 810 evaluations and determinations, and has discussed with the Forest Service a suggested format for "810 sections" of Forest Service environmental impact statements. We have found that the U.S. Forest Service has begun to make use of subsistence data we have provided for their recent planning documents. We therefore hope that the inadequacies of the original EIS for the 1986-90 plan will not reoccur in the court-ordered SEIS for 86-90. Since the *Hanlon et al* suit concerns the original 1986-90 FEIS document, however, we will concentrate on the assumptions the Forest Service made about subsistence resources, uses and needs in its original EIS. This affidavit focuses on 1) the assumptions underlying the U.S. Forest Service's 1986-90 Section 810 evaluation and determination of no significant restriction and 2) the relevance of information in the technical reports and affidavits submitted to the court during this lawsuit but not formally submitted to the Forest Service before the Regional Forester made his decision in December, 1986.

3. The following is a summary of substantive problems we have found in the Forest Service's 810 analysis of the significant restrictions which operations under the 1986-90 plan may produce on Hoonah residents' subsistence hunting and fishing. In our view, the 810 analysis made three overriding and erroneous assumptions which have no basis of support concerning 1) hunter and fisher mobility, 2) the accessibility and availability of deer, and 3) the effects of increased competition. Had these assumptions been corrected,

the 810 analysis probably would have been substantially different in substance and conclusions.

4. **Hunter Mobility.** In the analysis of significant restrictions, the Forest Service assumed that Hoonah hunters and fishers were completely mobile in their choice of hunting and fishing areas. That is, the analysis assumed that if lands and waters continued to exist somewhere on Chichagof Island which were not depleted of deer or salmon, then Hoonah's subsistence uses would not be significantly restricted even if the territories normally used for subsistence were depleted as a result of logging. Hoonah harvesters could simply move to these other areas to harvest deer and fish. This assumption is erroneous for monetary and sociocultural reasons:

5. **Monetary Constraints on Mobility.** First, the Forest Service failed to consider that low household incomes are important constraints on mobility of subsistence hunters, whether by skiff or automobile; instead, the Forest Service assumed that monetary characteristics of subsistence hunters and rural communities were unimportant in assessing restrictions on subsistence. This is erroneous. Limited monetary resources restrict the flexibility of Hoonah hunters in moving to new hunting areas in response to depleted deer populations in areas close to the community.

6. **Division of Subsistence research** found that Hoonah residents used areas close to the community that were accessible by foot or skiff much more intensively than distant parts of the subsistence territory. Intensity was measured within geographic areas by percentage of hunters using an area each year; *see* Robert Schroeder's original affidavit, dated July 19, 1988. These intensity-of-use data have been provided to the SEIS team. The more distant and difficult to reach areas are accessible by larger fishing boat, and, through the road system, by sturdy truck. In 1986, when field research was conducted, Hoonah had an estimated 30 - 50 boats, primarily commercial fishing boats, capable of making a safe passage to alternative uncut areas near Idaho Inlet, Mud Bay, Freshwater Bay, or Tenakee

Inlet. Not all households had access to these boats or could afford to operate the boats for subsistence harvesting in distant locations.

7. Income data for the community show that subsistence hunters in Hoonah are cash-poor over the long term. Monetary sources in the community are restricted and unstable over time. This is the case in most of the rural communities reliant upon subsistence fishing and hunting where we have done studies. In Hoonah, household income from the local timber industry will diminish substantially in the near future. This means that in the short and long term, most households in Hoonah cannot afford to purchase or operate the large boats needed for a household to travel long distances in Southeastern Alaska to hunt deer or fish for subsistence. Nor can most Hoonah households afford automobiles that are capable of travelling to the expanding reaches of the logging road network.

8. Thus, because of these monetary constraints, a household's subsistence hunting is significantly affected by depleted deer populations in areas geographically close to their community. Most hunters or fishers cannot afford to subsistence hunt or subsistence fish in areas farther away. This means that most hunters must continue to hunt in areas close to the community, even though deer populations are depleted in these areas over the long term by logging. The assumption of Forest Service that Hoonah hunters can travel long distances to other undepleted areas on Chichagof Island or Admiralty Island is incorrect and without support. To ensure against restrictions on subsistence, land and water close to Hoonah should be left unaffected by logging, road building, and log transfer sites to insure future access by the average Hoonah households on low incomes for hunting and fishing.

9. **Sociocultural Constraints on Mobility.** In the analysis of significant restrictions, the Forest Service failed to consider that special sociocultural relationships link subsistence households with particular traditional harvest areas, such as the Whitestone Harbor area near Hoonah. Those sociocultural relationships restrict the flexibility of a subsistence hunter or subsistence fisher in responding to depleted deer and

fish populations in areas close to the community. Rural communities, particularly Hoonah and other Tlingit and Haida Indian communities, hunt and fish in identifiable traditional use areas. These are site-specific areas traditionally used by particular Tlingit clans in Hoonah. Tlingit communities have a long history of use establishing special relationships to these traditional areas, including socio-political conventions regarding access, religious and mythical meanings linking the social group and the land, economic investments and capital in the area such as camp facilities, special knowledge of the area, and personal and psychological values regarding use of the area. In addition, efficient fishing and hunting methods specially adapted to the special features of the resource use area have been developed over time.

10. The traditional use areas of a Tlingit community do not cover extensive areas of Southeastern Alaska but are relatively restricted and tend to cluster around the community, and they are specific to that community. Depletion of wild resources in these areas with special sociocultural relationships creates special hardships on Tlingit communities' subsistence practices both quantitatively, meaning that measurable harvest levels and harvest efficiencies decrease, and qualitatively, meaning important restrictions occur on the social, cultural, religious, and psychological aspects of subsistence uses.

11. In the case of Hoonah, this means that lands and rivers elsewhere on Chichagof, Baranof, or Admiralty Islands can not provide substitutes for the subsistence uses occurring on these traditional use areas close to Hoonah. The Forest Service's Section 810 assumption to the contrary is erroneous. For example, Hoonah Tlingits are constrained by customary Tribal law against moving from a traditional salmon fishing stream into the traditional salmon fishing area of a neighboring community, like Angoon or Tenakee Springs. Inter-community territorial intrusions create special social conflicts somewhat similar to the constraints one political entity feels about violating the territory of another political entity. In an earlier era, inter-community territorial conflicts over resources often led to warfare.

12. Just as importantly, Hoonah Tlingits cannot move from the community's special fishing or hunting areas which are steeped in mythological traditions into another without losing a substantial part of the meaning of their subsistence way of life.

13. Finally, it is by no means certain that Hoonah Tlingits could find other hunting or fishing areas with ecological features similar to the areas around Hoonah; it was those ecological features, after all, which warranted the founding of the community in its present location.

14. None of the above factors was considered by the Forest Service in its 1986-90 Section 810 analysis, which erroneously concluded that, for Tlingits in Hoonah, one set of fishing areas was like another, and one set of hunting areas like another.

15. Accessibility and availability of deer. The U.S. Forest Service analysis of deer availability appears to conclude that, if the number of deer available somewhere on north Chichagof Island in Game Analysis Units 35 and 36 is equal to or greater than the number of deer needed for subsistence, that the subsistence needs have been met. This conclusion is also erroneous.

16. In its analysis of significant restrictions, the Forest Service assumed that the number of deer in Hoonah's hunting area following timber harvests was an indicator of the number of deer harvested by Hoonah hunters over time, and assumed that as long as deer populations are available, subsistence harvests will be met. This assumption is without support. In fact, as demonstrated by research contained in published technical reports throughout southeast Alaska, subsistence hunter success rates in second growth forests are depressed to almost zero even though deer may be present. This is caused by the regrowth of even-stand trees, which are too thick to allow access to deer and, consequently, substantially reduces effective hunting. Even if deer may be present in second-growth forests, hunters simply cannot get to them to harvest them. The reductions in deer harvests occur very quickly, about 12 years following a clear cut. Although it is difficult to predict with accuracy, reductions in deer harvest may continue for up to 200 years, based on

current regrowth patterns in the forest. It is not enough for the analysis to show that deer populations are present in an area after timber harvests; the analysis must show that deer can be accessed and harvested. Because the analysis does not perform this essential step, translating deer population numbers into subsistence deer harvests, it erroneously concludes that subsistence uses of deer will not be significantly restricted.

17. Decreasing deer populations will mean that Hoonah hunters will need to spend more time and money to harvest deer. In recent years hunters have spent an average of from three to seven days hunting for every deer harvested. At the time of field research we found that the desired level of harvest was lower than the actual harvest by a considerable margin. With the projected decline in the population after the effects of logging are felt, this difference between desired and actual level of harvest is likely to increase, and we predict that, because of the increased time, effort, and costs needed to harvest deer, fewer deer will be taken by Hoonah residents for subsistence. The mean number of hunting days per deer harvested will increase. The likely lower harvest and increase in hunter effort per deer will probably significantly affect the subsistence use of this species.

18. **Competition for hunting.** Based on a survey of logging households at the Whitestone logging camp in 1986, logging families harvest deer, halibut, and some salmon species at a rate comparable to that of Hoonah residents. The 86-90 cutting plan has resulted in an important growth in the number of logging families using resources in the Port Frederick area. Competition from logging households and other factors appear to have decreased Hoonah use of areas near the Eight Fathom Bight. Competition of this sort may be a more general factor on the Hoonah road system.

19. In the last four years the Hoonah road system has become the regional "hot spot" for many hunters in Southeastern Alaska. The Alaska Board of Game reviewed available research and heard public testimony on the effects of this competition on Hoonah's use of deer. The Board concluded that competition with non-local hunters was a serious issue and reduced the bag limit for non-local hunters from six deer per hunter

three deer per hunter. Further decreases in bag limits for non-local hunters as well as for local hunters may take place as deer populations decline in clearcut areas near the road system.

20. Restrictions on other species have also been imposed by the Board of Game. Brown bear hunting was closed on north Chichagof Island in the fall of 1988 due to overharvest of this resource. Biologists attributed the overharvest to hunters' using roads as access and to increased bear-hunter interactions. Depending on this year's data, the closure may continue through another hunting season.

21. Increased competition from local loggers and non-local hunters for deer in the Hoonah deer harvesting territory that has occurred in the first three years of the 1986-90 operating plan was a foreseeable outcome of the ambitious logging and road building called for in the plan.

22. Increased competition for fish and invertebrate resources due to the increased logging population using localized intertidal, riverine, and marine resources has taken place as well. Some competition from non-local fishers using the road system may occur as well. This competition for fish and invertebrate resources may restrict Hoonah residents' harvest, particularly in clam, cockle, halibut, salmon, and Dolly Varden harvesting areas close to the community.

23. Total closure of brown bear hunting for Hoonah residents has occurred as a result of activities occurring under the 1986-90 operating plan. The effects of competition for deer have begun to be felt. This experience of restriction of harvest over a very short time period shows that competition for harvest needs to be closely examined for its potential to significantly restrict subsistence uses.

24. Generalizability of research findings, need for additional substantive data. The Division of Subsistence entered into a formal agreement with the U.S. Forest Service in 1982 to conduct studies in southeast Alaska communities specifically to examine the impact of timber harvesting on subsistence. Communities were selected for intensive

studies based on the extent of logging that had taken place and the likely future impact of planned timber harvesting. Both agencies agreed on the selection of Angoon, Kake, Klawock, Hoonah, Tenakee, and Yakutat as representative of different stages of impact for these studies which were partially funded by the U.S. Forest Service and subject to interagency review.

25. The intent of these studies was to develop a generalized model for the effect of logging on subsistence. The studies in Klawock, Kake, and Yakutat were cases where there was a longer logging time depth; Angoon and Tenakee where there was an intermediate logging time depth; and Hoonah where logging was just getting underway at the time the studies were planned. Both agencies knew that the full effects of timber harvesting in Hoonah would not be manifest for some years. The findings and implications of studies in communities where logging had been underway for a longer time would indicate the kind of changes to expect in Hoonah during the course of the long term sale. A final report based on data from all six community studies is expected to be completed in late 1989.

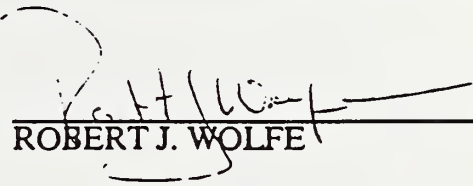
26. Hoonah is very similar in its subsistence harvesting, socioeconomic, and cultural characteristics to Angoon, Klawock, Kake, and Yakutat - the other small Tlingit communities located at settlement sites that have been inhabited for hundreds of years. These communities are similar to Hoonah in terms of population size, income level, ethnicity, and mixed subsistence-cash economy. As in the other communities, Hoonah Tlingits have a close traditional, almost religious, identification with clan territory and high involvement in commercial fishing. Tenakee and Hoonah share overlapping subsistence harvesting territories and use the same methods and means of harvesting. Because of their proximity, it is likely that specific U.S. Forest Service actions will affect them similarly.

27. In summary, because of our research design and because of the similarities among the communities studied, the research conclusions concerning the effects of timber

harvesting in Angoon, Kake, Klawock, Tenakee, and Yakutat can be reliably generalized to Hoonah.

28. The published reports and Robert Schroeder's original affidavit based on this research are extremely relevant to the U.S. Forest Service's 810 evaluation and determination. These studies provide a well documented examination of the effects of logging on subsistence in Southeast Alaska communities and are an essential part of any adequate 810 evaluation and determination. In ignoring this series of joint U.S. Forest Service and ADF&G studies, the 1986-90 plan ignored the only scientific source of information upon which a reasoned 810 evaluation and determination could be based.

DATED: 1-6-89



ROBERT J. WOLFE

AFFIRMED before me this 6TH day of January, 1989, at Juneau, Alaska.

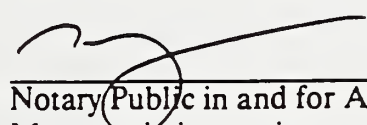

Notary Public in and for Alaska

My commission expires: 10-23-92

DATED: 1-6-89


ROBERT F. SCHROEDER

AFFIRMED before me this 6TH day of January, 1989, at Juneau, Alaska.


Notary Public in and for Alaska

My commission expires: 10-23-92

Robert J. Wolfe
Curriculum Vitae
October 1988

Born Los Angeles, California, 28 August 1950

Citizenship United States of America

Residence 310 Irwin Unit C, Juneau, Alaska 99801

(907) 586-2864

Occupation Research Director, Division of Subsistence, Alaska Department of Fish and Game

Work Address Alaska Department of Fish and Game, Division of Subsistence, Box 3-2000, Juneau, Alaska 99802

(907) 465-4147

Education

Ph.D. University of California, Los Angeles, Anthropology, 1979

M.A. University of California, Los Angeles, Anthropology, 1975

B.A. University of California, Los Angeles, Anthropology, 1972

Awards

National Institute of Mental Health, Predoctoral Traineeship in Behavioral Anthropology, 1976

Summa Cum Laude, 1972

Phi Beta Kappa, 1972

Work History

Research Director, Division of Subsistence, Alaska Department of Fish and Game, Juneau, 1982-

Assistant Professor, Department of Occupational Therapy, University of Southern California, Los Angeles, 1977-1981

Visiting Instructor, Department of Sociology, Loyola-Marymount University, Los Angeles, 1975-76

Teaching Assistant, Department of Anthropology, University of California, Los Angeles, 1973-75

Professional Associations

American Anthropological Association

Alaska Anthropological Association

Recent Significant Research

Subsistence fishing, hunting, and trapping economies and sociocultural systems of six Yup'ik Eskimo communities of the Yukon River Delta, 1981

Subsistence-based socioeconomic systems in four Yup'ik Eskimo communities of Southwest Alaska, 1983.

Ethnological analysis of subsistence productivity of 98 Alaska communities, culture change theory, and a statistical predictive model of production outputs for contemporary hunting-gathering societies in Alaska, 1984.

Ethnological analysis of subsistence productivity and social roles in selected Native communities to examine the theory of economic specialization among social and kinship groups in contemporary hunter-gatherer societies, 1986.

Interactions of developing sport guiding industry with traditional subsistence fisheries along the Togiak River, southwest Alaska, 1987.

Fishing, hunting, and trapping patterns and socioeconomic systems of three non-Native communities in the Nenana Valley of Alaska, 1988.

Ecological and sociocultural effects of historic and contemporary commercial forestry practices on the fishing and hunting patterns of Tlingit and rural non-Native communities in southeast Alaska, 1988.

Publications

Wolfe, Robert J.

1979 Food Production in a Western Eskimo Population. University of California, Los Angeles. Doctoral Dissertation in Anthropology. University Microfilms, Ann Arbor, Michigan.

Robert J. Wolfe

1981 Norton Sound/Yukon Delta Sociocultural Systems Baseline Analysis. Technical Paper No. 79, Socioeconomic Studies Program, Alaska Outer Continental Shelf Office, Anchorage, and Technical Paper No. 59, Division of Subsistence, Alaska Department of Fish and Game, Juneau, Alaska, 270 p.

Robert J. Wolfe

1982 Alaska Great Sickness, 1900: An Epidemic of Measles and Influenza in a Virgin Soil Population. Proceedings of the American Philosophical Society 126(2): 91-121.

Wolfe, Robert J. and Linda J. Ellanna

1983 Resource Use and Socioeconomic Systems: Case Studies of Fishing and Hunting in Alaskan Communities. Technical Paper No. 61, Division of Subsistence, Alaska Department of Fish and Game, Juneau, 274 p.

Robert J. Wolfe

1984 Commercial Fishing in the Hunting-Gathering Economy of a Yukon River Yup'ik Society. Etudes/Inuit Studies, Supplementary Issue 8:159-183.

Wolfe, Robert J. and Mary Pete

1984 Use of Caribou and Reindeer in the Andreafsky Mountains. Technical Paper No. 98, Division of Subsistence, Alaska Department of Fish and Game, Juneau, 14 p.

Wolfe, Robert J., Joseph J. Gross, Steven J. Langdon, John M. Wright, George K. Sherrod, Linda J. Ellanna, Valerie Sumida, and Peter J. Usher.

1984 Subsistence-Based Economies in Coastal Communities of Southwest Alaska. Socioeconomic Studies Program, Alaska Outer Continental Shelf Office, Anchorage and Technical Paper No. 59, Division of Subsistence, Alaska Department of Fish and Game, Juneau, 270 p.

Robert J. Wolfe

1986 The Economic Efficiency of Food Production in a Western Eskimo Population. In Steven J. Langdon (ed.), Contemporary Alaskan Native Economies, University Press of America, Maryland, p. 101-120.

Wolfe, Robert J., James A. Fall, Virginia Fay, Susan Georgette, James Magdanz, Sverre Pedersen, Mary Pete, and Janet Schichnes (contributors)

1986 The Role of Fish and Wildlife in the Economies of Barrow, Bethel, Dillingham, Kotzebue, and Nome. Technical Paper No. 154, Division of Subsistence, Alaska Department of Fish and Game, Juneau.

Wolfe, Robert J.

1987 Subsistence and Economic Downturns. Rural Development Exchange, College of Human and Rural Development Newsletter, University of Alaska, Fairbanks 8(3):4-5.

Wolfe, Robert J. and Robert J. Walker

1987 Subsistence Economies in Alaska: Productivity, Geography, and Development Impacts. Arctic Anthropology 24(2):56-81.

Hartman, Jeffrey L., Bruce H. Baker, Michael R. Dean, Michael J. Mills, and Robert J. Wolfe

1988 The Role of Fisheries in the Alaska Economy. Alaska Fish and Game 20(1):4-11.

Papers and Applied Research Reports

"The Human Adaptive Process." Keynote address, Annual Clinical Council, University of Southern California, Department of Occupational Therapy, Rancho Los Amigos Hospital, California, June 1978.

"Adaptation and Mental Health: An Anthropological Perspective." Keynote address, Annual Symposium on Occupational Therapy and Mental Health, Valley Chapter of the Occupational Therapy Association of California, Culver City, California, November 1978.

"Adaptation, A Core Concept in Occupational Therapy." Annual Conference of the American Occupational Therapy Association, Detroit, April 1979.

"Measles Infection and Tuberculosis Mortality in an Eskimo Population." Paper presented at the University of Southern California, Fourth Annual Research Colloquium, Los Angeles, April 1980.

"Cultural Factors Affecting Clinical Education in the Health Professions." Paper presented at the Field Work Council of the Occupational Therapy Association of California, Glendale, California, October 1980.

"Cultural Factors Influencing Health Care." Inservice training, Los Angeles County-University of Southern California Medical Center, Physical Therapy Department, Los Angeles, California, December 1980.

"Research: Measuring the Effectiveness of Clinical Practice." Address to the California Children Services Seminar, Los Angeles, California, April 1981.

"Rural Alaska Hunting and Fishing Economies as Self-Regulating Systems." Paper presented at the 33rd Alaska Science Conference, American Association for the Advancement of Science, Arctic Division, Fairbanks, Alaska, September 1982.

"Resource Use and Socioeconomic Systems: Case Studies of Fishing and Hunting in Alaska Communities." Report to the Alaska Boards of Fisheries and Game, Anchorage, Alaska, March 1983.

"Resource Diversification and Coastal-Riverine Habitats: The Economy of the Yukon Delta Eskimo." Paper presented at the Alaska Anthropological Meetings, Symposium on Hunting and Fishing in Rural Alaska Cultures, Anchorage, Alaska, March 1983

"Subsistence, Past and Present." Paper presented at Inua, Smithsonian Institute Exhibit, Bethel, Alaska, July 1983.

"Subsistence-Based Socioeconomic Systems in Alaska: An Introduction." Report to the Alaska Boards of Fisheries and Game, Anchorage, Alaska, March 1984.

"Subsistence-Based Economies in Coastal Communities of Southwest Alaska." Paper presented at Alaska Anthropological Association Meetings, Fairbanks, Alaska, March 1984.

"Subsistence Waterfowl Hunting on the Yukon-Kuskokwim Delta, Alaska." Affidavit presented in U.S. District Court, Alaska, Civil No. J84-013, Alaska Fish and Wildlife Federation and Outdoor Council, Inc. and Alaska Fish and Wildlife Conservation Fund, Inc. v. Robert Jantzen, Director of the U.S. Fish and Wildlife Service and Donald Collinsworth, Commissioner of the Alaska Department of Fish and Game, May 1984.

"Policy on Research Ethics, Division of Subsistence, Alaska Department of Fish and Game." Resource Notebook Series No. 2, Alaska Department of Fish and Game, Division of Subsistence, Juneau, Alaska, September 1984.

"Impacts of Economic Development on Subsistence Productivity: Western Region and Copper Basin Cases." Paper presented at the Alaska Anthropological Association Meetings, Anchorage, Alaska, March 1985.

"Subsistence Economies in Alaska: Productivity, Geography, and Developmental Impacts." Paper presented at the symposium, Modern Hunting and Fishing Adaptations in Northern North America, 84th Annual Meeting of the American Anthropological Association, Washington, D.C., December 7, 1985.

"Impacts of Roads and Settlement Entry on Subsistence in Alaska." Paper presented at the Alaska Anthropological Association Meetings, Fairbanks, Alaska, March 1986.

"The Super-Household: Specialization in Subsistence Economies." Paper presented at the 14th Annual Meeting of the Alaska Anthropological Association, Anchorage, Alaska, March, 1987.

"Subsistence Fishing Along the Kanektok and Goodnews Rivers, Western Alaska." Report to the Alaska Board of Fisheries, Anchorage, Alaska December, 1987.

"Fish and Wildlife in the Economy of the Nenana Valley: McKinley Park, Healy, Anderson, and Vicinity." Report to the Alaska Boards of Fisheries and Game, Anchorage, Alaska, March 1988.

"The Application of Subsistence Information in Fish and Game Management: Case Examples in Alaska." Paper presented at the American Association for the Advancement of Science, Arctic Science Conference, Fairbanks, Alaska, October 1988.

Robert F. Schoeder

Personal

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Male Married

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Division of Subsistence
Alaska Department of Fish and Game
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Douglas, Alaska 99824 907 465-2629

Education

1970-77 Department of Anthropology, University of Washington, Seattle, Washington. Ph.D. in Socio-Cultural Anthropology, 1977, M.A., 1972.

1965-67 B.A., Anthropology, University of Illinois, Urbana, Illinois.

1962-64 General Studies Program, University of Chicago, Chicago, Illinois.

Additional formal education at East-West Population Institute, Honolulu, Hawaii, and Center for Developmental Change, University of Kentucky, Lexington, Kentucky.

Awards and Fellowships

1977 Rockefeller Foundation post-doctoral fellowship for applied research in agricultural development in Nepal.

1977 Participant award from Office of Women in Development, U.S.A.I.D. to attend Women in Development Symposium, Houston, Texas.

1975 Participant award from East-West Population Institute, East-West Center, Honolulu, Hawaii.

1975 University of Washington travel grant to conduct field research in Nepal.

1973 American Institute for Indian Studies fellowship for field research in India.

1970-73 National Defense Education Act IV fellowship for graduate study.

1962-67 Illinois State Scholarship.

1962-64 University of Chicago Scholarship.

Positions Held

1982-88 Resource specialist II, III with Division of Subsistence, Alaska Department of Fish and Game. Perform and supervise research related to subsistence use of fish and game, analyze data, write reports, review documents, represent division in meetings with federal, state, and local agencies. Contact with Native and community organizations to arrange cooperative research and review of research has been a regular assignment. Develop and administered project budgets and secured funding from other agencies. Main assignment have been:

1. Performed quantitative analysis and field truthing of data on subsistence use of fish and game in southeast Alaska communities based on a 1988 survey of 1500 households in 30 southeast Alaska communities. Examined data for policy implications of findings and prepared reports and summaries government use and for presentation to communities. Coordinated field research and subsequent analysis with U.S. Forest Service and University of Alaska researchers in this cooperative research project (1988 to present).
2. Developed and supervised computer assisted spatial analysis and produced final maps of subsistence use areas for 30 southeast Alaska communities using ARC/INFO. The geographic information system based on these data will be used to examine ecological relations of subsistence harvest of fish and game and other land use activities and to provide baseline data for state of Alaska fish and game regulations and for planning for Tongass National Forest (1988 to present).
3. Designed and supervised production of set of color maps of subsistence for 10 Kotzebue Sound communities (1988).
4. Designed and directed comprehensive subsistence research in Hoonah, AK. Project included use area mapping and harvest measurement (1986- 1988).
5. Provided Division of Subsistence comments on land use plans and issues concerning economy of subsistence use, provide comment on federal management plans for parks and refuges (1982-present).
6. Coordinate and supervise production of the divisions reference and report cartographic products (1983-present).
7. Designed and directed cooperative (with Maniilaq Association) subsistence use area mapping in the Kotzebue Sound communities, phases I and II (1984-87).
8. Supervised research work and managed contract for production of NOAA Strategic Atlas subsistence maps (1984-87).
9. Supervised Division of Subsistence staff assigned to Habitat Guide Project and directed use of subsistence mapped and harvest data in these planning documents, (1983-86).
10. Assisted in subsistence use area mapping in Copper River Basin communities (1983).
11. Designed and directed cooperative (with Kodiak Area Native Association) harvest level and subsistence use area mapping research in seven Kodiak Island communities. Harvest survey was administered in both rural and road-connected communities. Performed quantitative analysis (1983).
12. Designed and supervised survey research on harvest levels of fish and game in Sitka (1982).

1987-88 Faculty affiliate, University of Alaska Southeast.

1984-86 Board member of MEN incorporated, vice president 1984-85. Men is a community based program treating batterers and sex abusers in prison and outpatient facilities.

1981-82 Resource specialist III with Division of Subsistence, Alaska Department of Fish and Game. Performed and supervised research related to subsistence use of fish and game, analyze data, write reports, review documents, represent division in meetings with federal, state, and local agencies. Assigned as regional supervisor, Bethel. In this position I hired research and clerical staff, established a research program, and developed and administered regional budget.

1977,80-82 Consultant and trainer for mental health, health, and youth agencies and for drug and alcohol programs. Provided training in client counseling techniques and objectives to health care professionals.

1981 Project coordinator, Refugee Resettlement, Washington Association of Churches, Seattle, Washington. Supervised staff, identified sponsors, arranged placement, and provided orientation services for Indo-Chinese refugees. Managed resettlement agency regional office and budget.

1981 Research analyst ADP, Fetal Alcohol Program, School of Medicine, University of Washington, Seattle, Washington. Analyzed multiple sets of data on patients at risk. Utilized batch and on line facilities primarily of university mainframe computer.

1977-80 Research anthropologist, with Rockefeller Foundation, International Agricultural Development Services, and Ministry of Food and Agriculture, Kathmandu, Nepal. Concurrently research associate at University of Washington. Member of an interdisciplinary team applying farming systems approach to agricultural development in rural areas of Nepal. Project maintained multiple field sites where agricultural innovations were introduced and evaluated.

Designed and performed baseline sociocultural research in support of this project and evaluative research on adoption of new agricultural technologies. Supervised field and office staff. Used extended case ethnography and survey methodologies. Responsible for data analysis and final write up. Reported results to government and scientific agencies. Developed and administered research budget.

1977 Research analyst, School of Nursing, University of Washington. Performed final ADP statistical analysis for a large sample social medicine study of death and dying.

1977,81-82 Instructor, Continuing Education, School of Social Work, University of Washington. Organized and taught workshops on human sexuality and counseling techniques for health care professionals.

1976 Intern at East-West Population Institute, East-West Center, Honolulu, Hawaii. Interdisciplinary research of application of social demography within anthropology. ADP analysis of Nepal village census data using own-children method.

1975-76 Teaching assistant, University of Washington, Seattle, Washington. Lectured, counseled students; organized and taught course on women in cross-cultural perspective.

1970 Neighborhood Youth Corps counselor in New Bedford, Mass. Organized learning activities and counseled inner city youth.

1967-70 Peace Corps Volunteer extension education specialist in rural Bihar, India. Provided classroom and in-service training for health workers, developed teaching materials, supervised health workers, evaluated district birth control program, wrote a training manual.

1967 Recreational therapist, Maryville Academy, DesPlaines, Illinois.

Additional Research Experience

1976 Exploratory field trips to Kangneung Province, Korea, and Negros Oriental, Philippines. Social change and subsistence agriculture.

1973-75 Dissertation research in rural Nepal. Investigation of change in subsistence agricultural economy, village social structure, and population behavior. Study of human ecological relationship among agricultural intensification, population density, and land use. Major changes in both agricultural and forest land use were found to have taken place. The a pattern of land use intensification documented in this case study appears to be common in many agricultural communities.

1971-73 Assisted Dr. Kenneth Read in urban anthropological study of gay bar society.

Selected Papers and Publications

1988 Contemporary Use of Fish and Wildlife in Hoonah, Alaska. Juneau: Division of Subsistence, ADF&G (forthcoming).

1987 with David B. Andersen, Rob Bosworth, Judith M. Morris, and John Wright, Subsistence in Alaska: Arctic, Interior, Southcentral, Southwest, and Western Regional Summaries. Tech. Report 150. Juneau: Division of Subsistence, ADF&G.

1987 Subsistence Land Use Mapping in the NANA Region. Tech. Report 130. Juneau: Division of Subsistence, ADF&G.

1987 Subsistence Use Area Atlas for Ten Kotzebue Sound Communities. Juneau: Division of Subsistence, ADF&G, and Maniilaq Association.

1986 Kotzebue Sound Subregional Assessment. In Alaska Habitat Management Guide Arctic Region Volume II: Human Use of Fish and Game, Juneau: Division of Habitat, Alaska Department of Fish and Game.

1987 with Michael Coffing, Subsistence Land Use Maps. In Bering, Chukchi, and Beaufort Seas Coastal and Ocean Zones Strategic Assessment: Data Atlas, NOAA, Dept. of Commerce.

1985 Modern Kodiak Koniag Harvest of Fish and Game: Economy and Politics. Paper presented at the American Anthropological Association Meetings, Washington D.C.

1985 Prince William Sound Subregional Assessment. Alaska Habitat Management Guide Southcentral Region Volume II: Human Use of Fish and Game, Juneau: Division of Habitat, Alaska Department of Fish and Game.

1986 Western Regional Assessment. Alaska Habitat Management Guide Western Region Volume II: Human Use of Fish and Game, Juneau: Division of Habitat, Alaska Department of Fish and Game.

1985 Aleutian/Pribilof Island Subregional Assessment. Alaska Habitat Management Guide Southwest Region Volume II: Human Use of Fish and Game, Juneau: Division of Habitat, Alaska Department of Fish and Game.

1985 Kodiak Subregional Assessment. Alaska Habitat Management Guide Southwest Region Volume II: Human Use of Fish and Game, Juneau: Division of Habitat, Alaska Department of Fish and Game.

1985 Iliamna Lake Subregional Assessment. Alaska Habitat Management Guide Southwest Region Volume II: Human Use of Fish and Game, Juneau: Division of Habitat, Alaska Department of Fish and Game.

1985 with John Wright and Judy Morris, Bristol Bay Regional Subsistence Profile. Tech. Paper #114. Juneau: Division of Subsistence, Alaska Dept. of Fish and Game.

- 1985 *Himalayan Subsistence Systems: Indigenous Agriculture in Rural Nepal*. Mountain Research and Development, 5:1, pp. 31-44.
- 1984 *Contemporary Harvest and Use of Fish and Game in Kodiak Island Koniag Communities*. Paper presented at Society for Applied Anthropology meetings, Toronto.
- 1983 with James Fall and Tom Peterson. Kodiak Island Area Local Fish and Game Resource Guide. Kodiak: Kodiak Area Native Association.
- 1982 *Himalayan Subsistence Systems*. Paper presented at American Anthropological Association Meetings, Washington D.C.
- 1982 and Richard K. Nelson. *Sitka: Resource Uses in a Large, Non-Road Connected Community of Southeast Alaska*. In Robert J. Wolfe and Linda J. Ellanna, eds. Resource Use and Socioeconomic Systems: Case Studies of Fishing and Hunting in Alaskan Communities. Tech. paper no. 61. Juneau: Division of Subsistence, Alaska Department of Fish and Game.
- 1981 and Gaston Guzman. *A Psychotropic Fungus in Nepal*. Mycotaxon, 13:2.
- 1981 and Marlene Dobkin de Rios. *Is Science Catching Up with Magic?* In H. P. Duerr. The Scientist and the Irrational. Heidelberg.
- 1980 The Adoption of New Agricultural Technologies at Three Cropping Systems Sites in Rural Nepal: A Look at Socio-cultural Receptivity to Change. Kathmandu: Ministry of Agriculture.
- 1979 and Robert D. Retherford. *Application of the Own-Children Method of Fertility Estimation to an Anthropological Census of a Nepali Village*. Demography India. 8:1,2.
- 1979 and Marlene Dobkin de Rios. *American Occupations, Leisure Time Use and Left Brain/Right Brain Dialectics: Some Explorations*. In Edward Norbeck and Claire Sarrer, eds. Forms of Play of Native North Americans. St. Paul: West Publishing Company.
- 1979 and Elaine D. Schroeder. *Women in Nepali Agriculture: All Work and No Power*. Journal of Development and Administrative Studies. 1:178-193.
- 1979 Farmer Rice Preference Research, Pumdi Bumdi, 1979. Kathmandu: Ministry of Agriculture.
- 1978 *Peasants or Farmers: Applied Agricultural Development Research in Nepal*. Paper presented at American Anthropological Association Meetings, Los Angeles.
- 1976 Ecological Change in Rural Nepal. Dissertation. Department of Anthropology, University of Washington, Seattle, Washington.
- 1969 Birth Control and Extension Education Training Manual. Patna: Ministry of Health, Government of Bihar, India.

Selected Land Use Area Mapping

- 1988 Designed and supervised analysis of subsistence use area maps from 30 southeast Alaska communities using ARC/INFO, a computer based geographical information system. Maps based on this spatial analysis will be used in revision of the Tongass Land Use Management Plan. A map atlas with about 100 1:250,000 maps will be produced as well.

1986 Designed and supervised subsistence use area mapping for Hoonah, AK. Both extensivity and intensity of use data were collected. Approximately 12 1:250,000 maps were produced.

1986 Supervised phase II of field mapping and cartography of subsistence use areas in five Kotzebue Sound communities as part of a continuing joint project with Maniilaq and did field mapping in one of the five communities. Approximately 60, 1:250,000 maps will be produced.

1985-86 Supervised phase I of field mapping and cartography of subsistence use areas in five Kotzebue Sound communities as part of a continuing joint project with Maniilaq and did field mapping in four of the five communities. Approximately 52, 1:250,000 maps were produced.

1985-86 Assisted in development of a data base cataloging system for subsistence use area maps. Over 800 maps have been entered into this system to date. Assisted in development of an annual hard copy map catalog.

1985-86 Supervised a) review of all existing subsistence maps for coastal areas of Bering, Beaufort, and Chukchi seas and b) compositing of these mapped data at 1:2,000,000 scale for use in a NOAA Strategic Atlas.

NOAA. Bering, Chukchi, and Beaufort Seas Coastal and Ocean Zones Strategic Assessment: Data Atlas, NOAA, Dept. of Commerce. 1987.

1984-86 Designed 1:1,000,000 series of color maps of subsistence use areas by species and by community for Bristol Bay area and directed cartography. Twelve maps were produced. In John Wright, Judy Morris, and Bob Schroeder. Bristol Bay Regional Subsistence Profile. Tech. Paper #114. Juneau: Division of Subsistence, Alaska Dept. of Fish and Game, 1985.

1982-86 Supervised and assisted in the compilation of reference subsistence use area maps for five regional atlases. Developed standard reference map format and reviewed or supervised review of cartography. The Southwestern Region volume has 289, 1:250,000 maps. Volumes for Southcentral, Arctic, Western, and Interior regions contain about 200, 175, 150, and 150 maps respectively.

Alaska Habitat Management Guide Southwestern Region Volume IV: Reference Maps Human Use of Fish and Wildlife. Juneau: Division of Habitat, Alaska Department of Fish and Game, 1985.

Alaska Habitat Management Guide Southcentral Region Volume IV: Reference Maps Human Use of Fish and Wildlife. Juneau: Division of Habitat, Alaska Department of Fish and Game, 1986.

Alaska Habitat Management Guide Arctic Region Volume IV: Reference Maps Human Use of Fish and Wildlife. Juneau: Division of Habitat, Alaska Department of Fish and Game, 1986.

Alaska Habitat Management Guide Western and Interior Regions Volume IV: Reference Maps Human Use of Fish and Wildlife. Juneau: Division of Habitat, Alaska Department of Fish and Game, 1986.

1985 Supervised final correction of digitized subsistence use area maps for North Slope communities and their use in the forthcoming Habitat Guide map atlas. About 95 maps were produced.

1984-85 Arranged and reviewed digitizing of Kodiak Island subsistence use area maps by United States Fish and Wildlife Service for use in refuge management planning.

1984 Assisted other field researchers in completion of subsistence use area mapping in 21 Copper River Basin communities. About 145, 1:250,000 maps were produced.

1983 Developed joint project (with Kodiak Area Native Association) for subsistence use area mapping in six Kodiak rural communities. Sixteen 1:250,000 maps were produced.

Professional Memberships

Alaskan Anthropological Association; American Anthropological Association; American Association for the Advancement of Science; Society for Applied Anthropology; Society of Practicing Anthropologists; Society for Visual Anthropology.

Languages

Hindi, Nepali, fair French.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
the T'Addeintaan Clan, VICTOR
BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
official capacity as Regional
Forester for the Alaska
Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civil

PLAINTIFFS' EXHIBIT 54

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually and as Chief
of the Wooshikitaan Clan, RICHARD
SHEAKLEY, SR., Individually and as Chief of
the TAddeintaan Clan, VICTOR BEAN,
RICHARD BEAN, JR., ERNESTINE HANLON,
GEORGE WESTMAN, and DOUGLAS GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his official capacity as
Regional Forester for the Alaska Region,
DALE ROBERTSON, in his official capacity as
Chief of the United States Forest Service,
RICHARD LYNG, in his official capacity as
Secretary of Agriculture, and the
UNITED STATES FOREST SERVICE, an
agency within the Department of Agriculture,

Defendants,

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civ.

SUPPLEMENTAL
AFFIDAVIT OF
VICTOR BEAN

**LAW OFFICES OF
ALASKA LEGAL SERVICES CORPORATION
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JUNEAU, ALASKA 99801
(907) 586-6425**

1. I am one of the plaintiffs in this case. This affidavit follows the one I submitted in June 1988. It explains in greater detail where I have always hunted deer, the ways I have gotten to those hunting areas and changes in my deer hunting because of timber harvest and development around Hoonah.

3. I have hunted extensively all over Northern Chichagof Island, including a part of the coast in VCUs 208, 209, 210, 211 and 212 and 213. I have also hunted up the drainage of Suntaheen and Iyouktug Creeks (in VCUs 209 and 210) and Wukuklook and Gypnuk Creeks (in VCU 212).

5. I still hunt in the above areas by skiff but I also go by road some too. This
I took the road from Hoonah all the way to False Bay in VCU 210. In fact, I hu
throughout the road system in VCUs 209 and 210. Although I hunt by road some, I do
kill nearly as many deer from the roads as from a skiff. It is also more expensive to tr

by vehicle, with gasoline costs, insurance, tires and general maintenance. My vehicle, like those of a lot of people in Hoonah, is not able to travel over the bumpy roads too often. It takes a lot of maintenance to keep a vehicle running on these roads.

6. Before the roads and clearcuts, I hunted very close to Hoonah by foot or skiff and killed my limit early in the season. I only occasionally had to go as far as Freshwater Bay in VCU 213; most often I killed my entire limit in Whitestone Harbor and closer to Hoonah. Now I can not find deer close to Hoonah. On the road system, Whitestone Harbor, in VCUs 209 and 210, is the closest area with deer big enough to shoot. But it is becoming harder and harder to find deer from the road system even there, mainly because outside hunters use the roads to hunt there and often camp in our favorite hunting spots. This year I had to go as far as the road went in VCU 210 and to Inian Island by skiff. But it is very expensive to drive that far on the road system and usually dangerous to travel across open water by skiff during the hunting season.

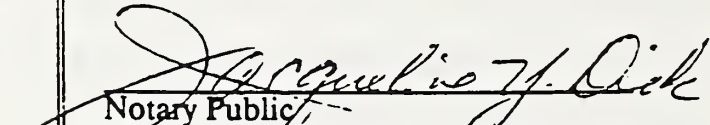
7. Not only is it becoming more expensive to hunt for deer, it takes much more time. During the fall and winter months, there are not many hours of daylight. By the time I go on a short road trip, the daylight is often almost gone. In the past few years, I have had to hunt much more to even get my limit; that time takes away from time I need to spend doing other things to prepare for winter, like cutting wood.

8. Every year, it takes me longer to get my limit of deer, becomes more expensive, and requires much more time. But deer is one of the only foods we have available to us; it is very expensive to try to buy fresh meat at the store. Like a lot of Hoonah residents, I can not afford to buy all of my and my family's food at the store. Even if I could, I wouldn't want to because deer is an important Native food and hunting deer is part of my culture.

DATED this 4 day of Jan, 1989, at Hoonah, Alaska.


VICTOR BEAN

SUBSCRIBED and SWORN TO before me
this 4 day of Jan, 1989, at
Hoonah, Alaska.


Notary Public
My commission expires: 6-11-91

LAW OFFICES OF
ALASKA LEGAL SERVICES CORPORATION
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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
Clan, RICHARD SHEAKLEY, SR.,
Individually and as Chief of
the T'Addeintaan Clan, VICTOR
BEAN, RICHARD BEAN, JR.,
ERNESTINE HANLON, GEORGE
WESTMAN, and DOUGLAS
GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his
official capacity as Regional
Forester for the Alaska
Region, DALE ROBERTSON,
in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civil

PLAINTIFFS' EXHIBIT 55

SUPPLEMENTAL AFFIDAVIT OF GEORGE WESTMAN

Alaska Legal Services Corporation

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Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually and as Chief
of the Wooshikitaan Clan, RICHARD
SHEAKLEY, SR., Individually and as Chief of
the TAddeintaan Clan, VICTOR BEAN,
RICHARD BEAN, JR., ERNESTINE HANLON,
GEORGE WESTMAN, and DOUGLAS GLESSING,

Plaintiffs,

v.

MICHAEL BARTON, in his official capacity as
Regional Forester for the Alaska Region,
DALE ROBERTSON, in his official capacity as
Chief of the United States Forest Service,
RICHARD LYNG, in his official capacity as
Secretary of Agriculture, and the
UNITED STATES FOREST SERVICE, an
agency within the Department of Agriculture,

Defendants,

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civ.

SUPPLEMENTAL
AFFIDAVIT OF
GEORGE WESTMAN

ALASKA LEGAL SERVICES CORPORATION
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JUNEAU, ALASKA 99801
(907) 586-6425

6. Every year I have had to spend more time hunting to get my limit of deer (can get it at all). Because I work part-time as a cook, I am not able to take as much time I really need to get deer.

DATED this 5 day of Jan, 1989, at Hoonah, Alaska.

George Westman
GEORGE WESTMAN

SUBSCRIBED and SWORN TO before me
this 5 day of JANUARY, 1989, at
Hoonah, Alaska.

Regueline J. Cook
Notary Public

My commission expires: 6-11-91

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LEGEND

- INFORMATION DISPLAYED IS CURRENT
- VALUE COMPARISON UNIT BOUNDARY
 - EXISTING CUTTING UNIT *Partially Harvested*
 - PREVIOUSLY PLANNED CUTTING UNIT ①
 - PROPOSED CUTTING UNIT (86-90 PERIOD) ②
 - EXISTING ROAD *9/7/88*
 - PREVIOUSLY PLANNED ROAD *not constructed*
 - PROPOSED ROAD (86-90 PERIOD) *not constructed*
 - EXISTING *Cutting Unit Logging Completed*
 - PROPOSED ROAD (86-90 PERIOD) *not constructed*
 - AREAS THAT WILL BE MANAGED TO PROVIDE OLD GROWTH HABITAT CONDITIONS
 - EXISTING TERMINAL TRANSPORTATION FACILITY
 - PREVIOUSLY PLANNED TERMINAL TRANSPORTATION FACILITY
 - PROPOSED TERMINAL TRANSPORTATION FACILITY (86-90 PERIOD)
 - HARVEST UNIT NUMBER
 - SPECIAL USE PERMIT
 - MINING CLAIM
 - PRIVATE LAND
 - ③ STATE SELECTION
 - ④ NATIVE ALLOTMENT
 - ⑤ NATIVE SELECTION
 - ⑥ WITHDRAWAL

"NOT" NO HARVEST" OR OTHER APPROPRIATE PRESCRIPTIONS TO MAINTAIN OLD GROWTH HABITAT CONDITIONS. THESE PRESCRIPTIONS WILL APPLY DURING THE 1986-90 OPERATING PERIOD UNLESS THE BUREAU OF LAND MANAGEMENT DETERMINES OTHERWISE. FOR MORE INFORMATION, CONTACT THE BUREAU OF LAND MANAGEMENT, DENVER, COLORADO.

Scale: 1" = 2 1/4 Miles



N L R

Saltery Bay

1981-86 { 1986-90 ROD Implementation

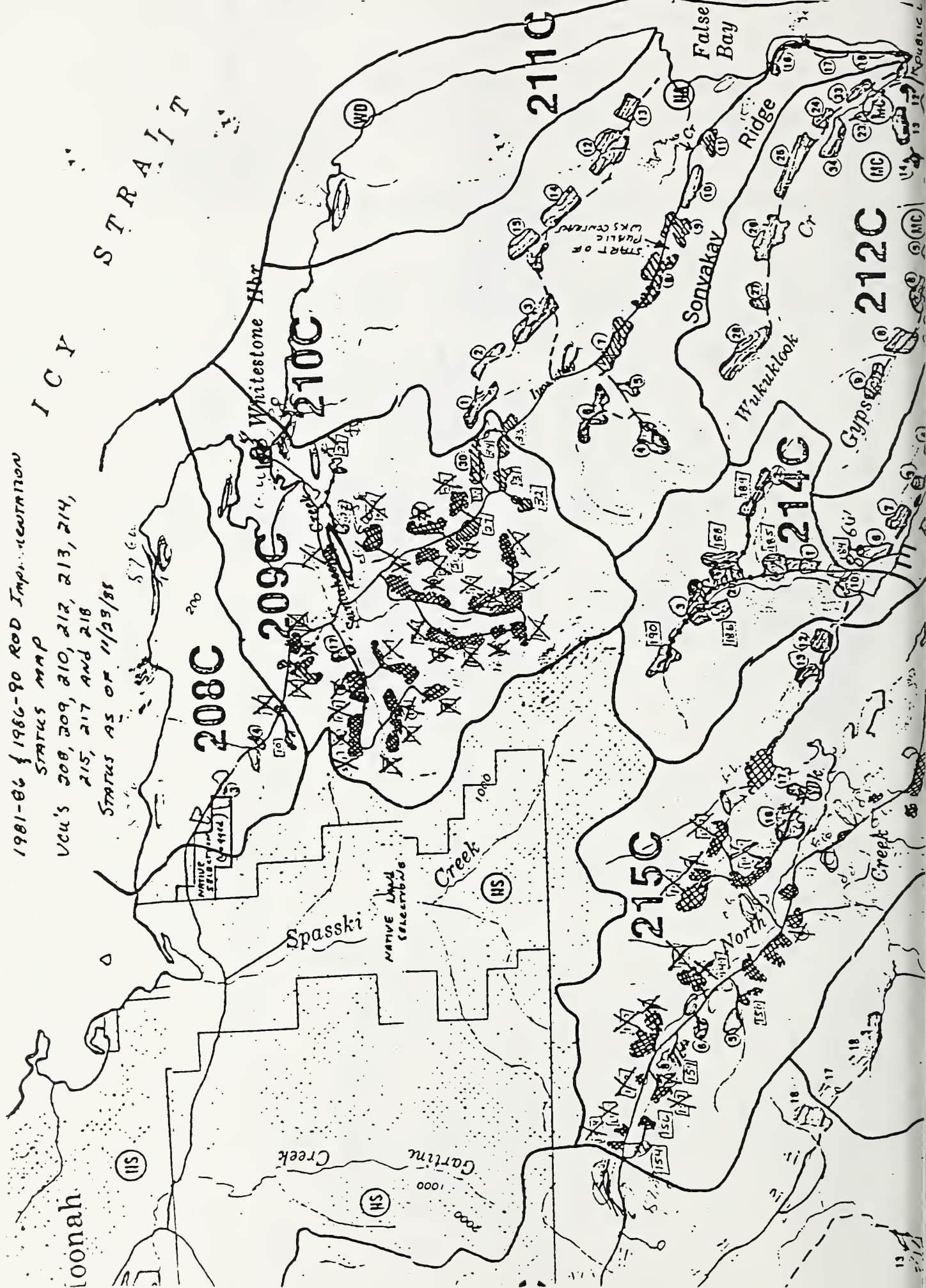
STATUS MAP

VCU's 208, 209, 210, 212, 213, 214,
215, 217 AND 218

STATUS AS OF 11/29/88

ICY

STRAIT



IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

ELI HANLON, SR., Individually
and as Chief of the Wooshikitaan
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Individually and as Chief of
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BEAN, RICHARD BEAN, JR.,
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in his official capacity as
Chief of the United States
Forest Service, RICHARD LYNG,
in his official capacity as
Secretary of Agriculture, and
the UNITED STATES FOREST
SERVICE, an agency within
the Department of Agriculture,

Defendants.

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civil

PLAINTIFFS' EXHIBIT 56

SECOND SUPPLEMENTAL AFFIDAVIT OF JOSEPH R. MEHRKENS

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Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

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of the Wooshikitaan Clan, RICHARD
SHEAKLEY, SR., Individually and as Chief of
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MICHAEL BARTON, in his official capacity as
Regional Forester for the Alaska Region,
DALE ROBERTSON, in his official capacity as
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RICHARD LYNNG, in his official capacity as
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UNITED STATES FOREST SERVICE, an
agency within the Department of Agriculture,

Defendants,

and

ALASKA PULP CORPORATION,

Intervenor-Defendant.

No. J88-025 Civ.

SECOND
SUPPLEMENTAL
AFFIDAVIT OF
JOSEPH R. MEHRKE

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1. This affidavit supplements the ones I submitted in this litigation on August 9, 1988 and September 12, 1988. Those affidavits detail the current strong market for wood cut in southeast Alaska, the way in which a significant upturn in that market has produced increased profits for the Alaska Pulp Corporation ("APC"), and the increased supply of timber from the Tongass National Forest and other private sources which is available to APC.

2. Based on information supplied in my previous affidavits, I conclude that the potential harms which APC has claimed will befall it if an injunction restricts logging in areas on Northeast Chichagof Island have been greatly overstated. I also conclude that APC could very likely find timber to substitute for any volume lost on Northeast Chichagof, because the strong demand for timber has produced an unprecedented timber supply, which is available to APC for the right price. Because of increased windfall profits now flowing to APC from its sale of low-cost timber from public lands, it has tremendous operational flexibility. APC therefore can afford to pay the price to procure supplemental timber. Based on these factors, I conclude that the loss of Northeast Chichagof timber to APC would affect only its profit margin.

- 2 -

both mills will continue to operate profitably without that timber. In fact, if APC and WFP were to purchase more timber from other sources, such as local Native corporations, they would support local employment and provide a local market for Native logs, which would nonetheless be cut but otherwise might have no market.

4. Between the last quarter of 1986 and the end of 1988, the market for timber cut in southeast Alaska has risen at record rates. Rising timber prices have substantially increased the volume of timber cut on both public and private lands, which has resulted in an increasing availability of timber. From FY87 to FY88, the volume of timber cut from the Tongass National Forest increased by 17 percent, to 331.5 million board feet (MMBF) net Scribner or net of utility volume.

5. Even though the timber base is much smaller for private lands in southeast Alaska, the combined private cut was 335 MMBF in FY87 and over 400 MMBF in FY88, more than a twenty percent increase in one year. Private timber cutting has exceeded Tongass timber cutting since 1985. Native Corporations provide, by far, the largest volume of private timber in southeast Alaska. An estimated 20 to 30 percent of harvestable Native timber does not meet export log grades and can be used by local saw and pulp mills.

6. Assuming that Native Corporations cut at least 300 MMBF of timber from their lands during 1989 (300 MMBF would be a decline of 25 percent from the volume cut in 1988, and is probably much less than will actually be cut), those Corporations can supply at least 75 to 90 MMBF of timber to local mills. Ironically, some of the Native-cut timber has been purchased by Canadian pulp companies, who presumably must pay higher prices for that timber than local mills because of higher log transportation costs. Given the higher costs, APC and WFP have a competitive edge on purchasing Native timber.

7. In addition, declines in demand for WFP's export products mean that it will produce less lumber, which will lessen its need for timber. Even with the major improvements since 1986, the lumber production levels of southeast Alaska sawmills are well below that of the late 1970s. For example, from 1977 to 1980 (before Na

Corporations began logging), annual lumber exports averaged 265 MMBF, lumber tally (lt). By comparison, current exports are about 120-150 MMBF, nearly a 50 percent reduction.

8. WFP's stated full capacity timber needs of 106 MMBF are highly optimistic. In his affidavit submitted in the *Tenakee II* case, Steve Seley, the operator of the Wrangell mill, used a figure of 72 MMBF as a minimum production level. Based on past performance, I believe this rate of sawlog usage is much more reasonable, if not overly optimistic, especially since the overall demand for timber in Japan, the principal export market, is expected to fall sometime in 1989 and remain at lower levels until the mid 1990s. Japanese wood-based housing starts are already falling. Actual starts were 1.674 million in 1987 and are expected to decline to 1.2 million over the next six years. Moreover, there has been a relative and absolute decrease in wood-based housing starts since 1979 (Ministry of Construction-Japan, 1988). This in turn will reduce the demand for Alaska's sawn products.

9. In any event, WFP's parent company, APC, has historically overestimated its own annual needs to harvest timber from the public lands. Since operations under the long-term contract began in 1961, APC's cut has never averaged more than 108 MMBF per year for any five-year operating period. That has not stopped APC from consistently overestimating how much timber it would require. For example, APC estimated that it would need from 120 to 160 MMBF of timber from public lands for FY88. It actually harvested only 94 MMBF -- at the height of this market cycle.

10. For FY89, the demand for APC/WFP timber products should be less than 1988 and certainly no greater. Thus, based on the volume APC cut in 1988, it should cut no more than 94 MMBF, and probably less. In VCUs 210 and 212, the Forest Service has authorized APC to cut 75.2 MMBF. *Record of Decision* at 19. However, during this period of increased timber supply throughout southeast Alaska, APC should be able to replace

that volume of timber easily, even if it was planning to take a full 75.2 MMBF from the VCU's in this year alone. Native supply alone would likely replace all that volume.


11. And APC's windfall profits would give it the working capital to seek alternative timber supplies, thereby averting any mill shutdowns. APC pays only \$1.48 per thousand board feet of timber from public land (and that rate will be in effect until the end of 1990), while independent operators and KPC pay the market rate of \$46 per thousand board feet. The difference in those figures represents windfall profits to APC. That working capital gives APC a tremendous competitive advantage, which means that it can easily secure volume to replace the timber it would have otherwise cut in VCUs 209, 210 and 212.

12. In conclusion, the available data on market trends for this year show that the market for timber in southeast Alaska will remain strong. Native Corporations will likely maintain their 1988 level of timber cutting. Native Corporations alone will likely create a pulpwood supply of at least 50 to 100 MMBF throughout southeast Alaska. This available timber supply means that it should be easy for APC to find substitute volume for VCUs 209, 210 and 212 until an injunction is lifted. APC's windfall profits during the past few years will allow it to purchase that timber volume with ease. Finally, the purchase of more Native timber while it is available, not only supports the mills in southeast Alaska but also provides a needed outlet for pulp-grade timber from Native lands. Currently, some of that timber is being purchased by Canadian pulp companies and is supporting Canadian employment in lieu of Alaskan employment.

DATED at Juneau, Alaska, this 9th day of January, 1989.


JOSEPH R. MEHRKENS

SUBSCRIBED and SWORN TO before me
this 9th day of January, 1989, at
Juneau, Alaska.


Notary Public
My commission expires: 9-28-92

LAW OFFICES OF
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(907) 586-6425

1981-86 { 1986-90 ROD Implementation

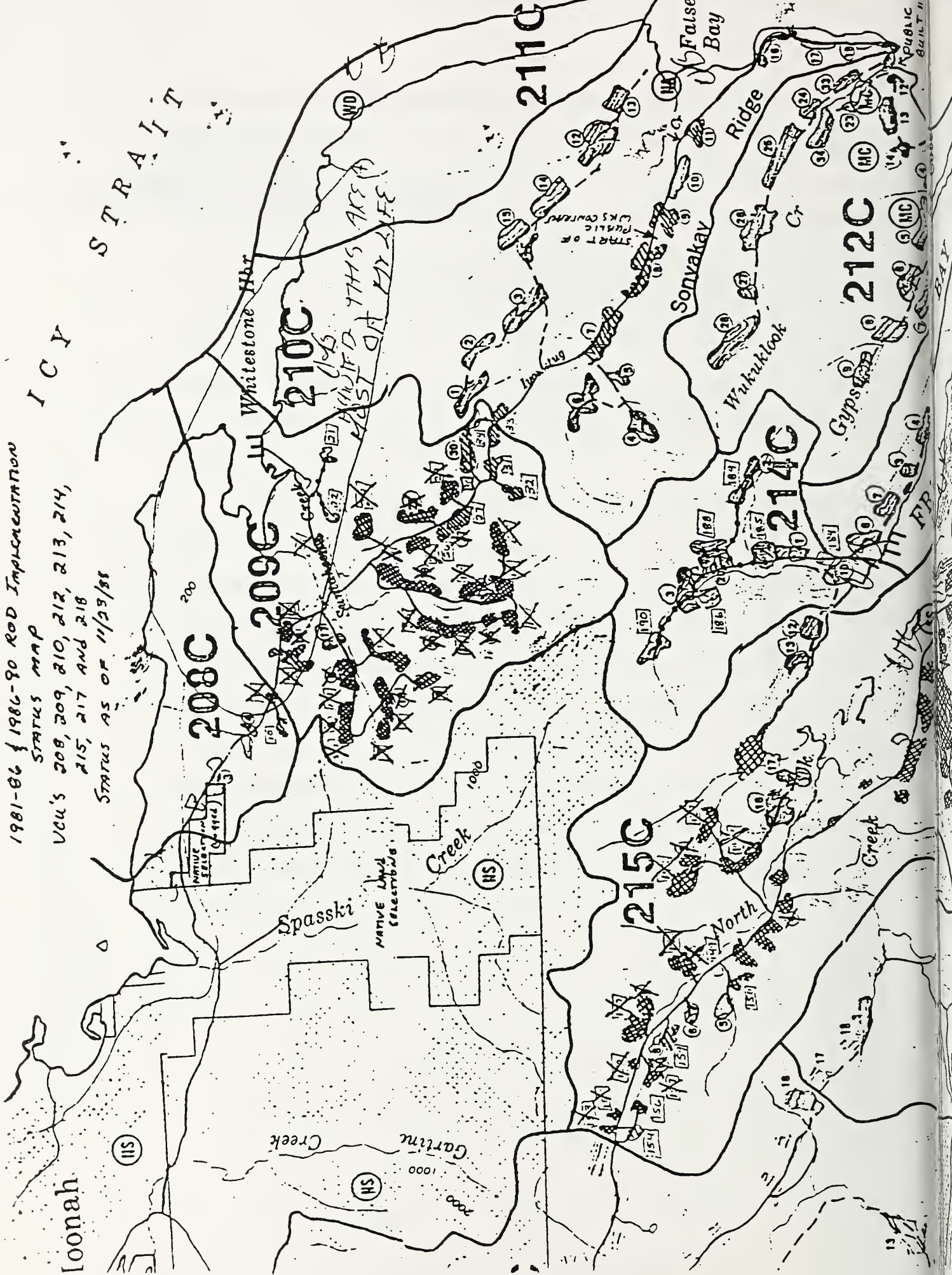
STATUS MAP

VCU'S 208, 209, 210, 212, 213, 214,
215, 217 AND 218

STATUS AS OF 11/23/88

ICY

STRAIT





LEGEND

- INFORMATION DISPLAYED IS CURRENT
- VALUE COMPARISON UNIT **PARTIALLY HARVESTED**
 - EXISTING CUTTING UNIT **PARTIALLY HARVESTED**
 - PROPOSED CUTTING UNIT (88-90 PERIOD) ①
 - EXISTING ROAD **BUILT TO 9/7/86**
 - PROPOSED ROAD (88-90 PERIOD) **NOT CONSTRUCTED**
 - EXISTING CARRYING UNIT **Logging Completed**
 - AREAS THAT WILL BE MANAGED TO PROVIDE OLD GROWTH HABITAT CONDITIONS
 - EXISTING TERMINAL TRANSPORTATION FACILITY
 - PROPOSED TERMINAL TRANSPORTATION FACILITY
 - PROPOSED TERMINAL TRANSPORTATION FACILITY (88-90 PERIOD)
 - HARVEST UNIT NUMBER ②
 - SPECIAL USE PERMIT ③
 - MINING CLAIM ④
 - PRIVATE LAND ⑤
 - WITHDRAWAL ⑥

NOTE: NO HARVEST OR OTHER APPROPRIATE PRESCRIPTIONS TO MAINTAIN OLD GROWTH HABITAT CONDITIONS WILL APPLY DURING THE 1988-90 OPERATING PERIOD UNLESS THE STATED MANAGEMENT DIRECTION IS MODIFIED AFTER FURTHER FIELD ANALYSIS AND PUBLIC DISCLOSURE

Scale: 1" = 2 1/4 Miles

8 Miles







FOREST SERVICE RESPONSE

Sealaska Corporation

Letter 238

238-1

Please refer to Theme Response 4: Site Specificity, and Theme Response 5: Subsistence. The Final SEIS also contains a more detailed analysis of the site-specific impacts of the proposed actions.

238-2

Please see Theme Response 6: Planning Process. Also note the statement on Purpose and Need in Chapter 1 of the Draft SEIS. Within the scope of this project, the purpose of the Draft SEIS was to consider alternatives within the context of the APC contractual agreement. See also the Final SEIS Consolidated Appendix, Volume III, F.

238-3

See Theme Response 4: Site Specificity, especially where we discuss mitigation measures.

238-4

We feel that we have adequately discussed the economic and social impacts of the proposed alternatives in Chapter 4 of both the Draft and Final SEIS.

238-5

The Forest Service fully considers both native and non-native subsistence concerns, including impacts to native cultural resources. The ANILCA process, including public involvement in the form of responding to written comments and holding subsistence hearings, has been ongoing since the passage of ANILCA and throughout the SEIS process. Subsistence users have had numerous means and opportunities to provide the Forest Service with information on what subsistence means to them, and to provide us with site-specific perspectives on subsistence. These opportunities included the TRUCs, the Subsistence Hearings, and the public comment period for the Draft SEIS. Please see Theme Response 1: Public Involvement.

238-6

We disagree that the Phase II Draft SEIS does not contain an adequate level of analysis to satisfy Federal District Court orders. The Draft SEIS contains adequate information in maps, Unit Cards, and accompanying text which showed the juxtaposition of existing harvest units and roads. Although this document is a supplement to the 1981-86 and 1986-90 EISs, its purpose is to augment and build upon the documents it supplements, not to reiterate those documents in full detail. The Phase II document does, in fact, contain additional information that was not provided in the Phase I SEIS on the 1981-86 and 1986-90 FEISs. The relationship between the Supplement

RESPONSE: Letter 238

and the earlier documents to which it is "tiered" is illustrated in Chapter 1, page 2 in the DSEIS for each Analysis Area. For our final subsistence analysis, including response to public comment and subsistence hearings, see the Phase II Final SEIS and Theme Response 5: Subsistence.

238-7

Issues concerning subsistence data were addressed in a letter from Regional Forester Michael Barton to Robert Loescher of Sealaska (letter dated July 14, 1989). The gathering of data for the Tongass Resource Use Cooperative Study (TRUCS) is an ongoing process, the success of which depends a great deal upon feedback from the communities. The TRUCS maps show areas used by communities for deer, salmon, other finfish, marine invertebrates, and marine mammal harvesting. Site-specific information on berry- and root-gathering sites would be helpful to our planning efforts, although the scale of TLMP maps prohibits the inclusion of all of these sites. Our other sources of subsistence data will be indicated in the Final SEIS. Finally, we indeed recognize that documentation of subsistence uses is an evolving process. With the help of community members, we can continue to develop a clearer picture of these resource uses. Please also see Theme Response 5: Subsistence.

238-8

We recognize the term "legislation" as being synonymous with the term "law." The 1982 edition of the American Heritage Dictionary defines legislation as "an enacted law." Our use of this term does not reflect an intention to downplay the importance or permanence of ANILCA. *Hanlon v. Barton* did indeed clarify that the Forest Service had used the wrong standard in its implementation of ANILCA, however, both the Draft and the Final SEIS are using the current standard as interpreted by and evolved through the court system.

238-9

We disagree that our long-term analysis of subsistence is in conflict with court orders. In response to court orders, we have separated the effects of our proposed actions from the effects of the TLMP and other proposals. By evaluating the effects of the proposed alternatives into the reasonably foreseeable future, we have fulfilled our obligations within the scope of this project EIS. These effects must be seen as distinct from the effects of potential future actions outlined in TLMP and the Life of Sale Plan for the APC contract which have not been proposed or scheduled, or the effects of other actions outside the scope of this document. As your letter states, the reasonably foreseeable long-term and cumulative effects do not "depend" on the alternatives presented in the SEIS.

238-10

Please see our response to Comment 238-7.

RESPONSE: Letter 238

238-11

The phrase "tradeoff" was used in quotes, and use of this phrase was not meant to suggest that there was an actual weighting process. In fact, no such weighting process existed or has been used. All resources were considered at length through the SEIS process. Chapter 2 presents a comparison of alternatives and their effects, which are evaluated in detail in Chapter 4. The Forest Service recognizes that subsistence uses have social, economic, and cultural values, and that these uses are intertwined with all other resource uses.

238-12

The purpose of the Draft and Final SEIS is to evaluate the environmental effects of the various alternatives; discussion and explanation of the choice of a preferred alternative is not necessary. Instead, discussion of the reasoning behind such a choice is most appropriately found in the ROD, the very purpose of which is to designate and discuss the chosen alternative.

238-13

As previously mentioned, the Subsistence Hearings were designed to aid the Forest Service in gathering more site-specific information on subsistence uses from the users themselves. For our final subsistence analysis, including response to public comments and the Subsistence Hearings, see the Phase II Final SEIS Subsistence sections of Chapters 3 and 4, and the FSEIS Consolidated Appendix, Volume I, B-2, which contains the Forest Service response to the Subsistence Hearings. For additional information on subsistence, see Theme Response 5.

238-14

The Forest Service did not conclude that the proposed actions would have no significant impact, but that, in conjunction with other reasonably foreseeable potential future actions, they may. This "may" finding necessitated the Subsistence Hearings, where subsistence users were be given the opportunity to provide us with further information on their site-specific concerns. In addition, the Forest Service held an Open House prior to each Hearing, so that those attending would have further opportunity to meet with the Interdisciplinary Team in order to clarify information in the Draft SEIS.

238-15

We disagree that we have not met our responsibilities under ANILCA. ANILCA does not provide for the priority of subsistence use, but rather sets down the procedures to be followed when conflicts arise between other resource uses and subsistence uses.

238-16

Your comment suggests that our contractual agreement with APC takes "precedence" over the perceived "priority" of subsistence uses. In this case, the Forest Service's contractual obligations were established before the enactment of ANILCA. Congress knew of the existence of these contracts when it passed ANILCA, but did not cancel them. In addition to providing a means of assuring continued subsistence use, ANILCA also provided for the continued availability of a

RESPONSE: Letter 238

timber supply adequate to support the dependent industry. Should a conflict arise between the availability of subsistence resources and compliance with contractual obligations such as the APC contracts, these contractual obligations should be considered "necessary" under ANILCA Section 810(a)(3)(1).

238-17

Please see Theme Response 6: especially where Subsistence is discussed. The salient question is not whether the Forest Service has "actively managed" or "provided adequate protection" for subsistence uses, but rather, whether the agency has complied with Section 810 of ANILCA. As explained in the Draft SEIS for Analysis Area 2 (page iii), our analysis concluded that the alternatives will not have significant impact on subsistence uses; however, the long-term cumulative effects of reasonably foreseeable actions could potentially restrict subsistence use. Finally, we stated that in response to that potential foreseeable impact, the Forest Service would comply with its obligation to hold subsistence hearings as required by Section 810 of ANILCA.

238-18

Please see Theme Response 6, where we discuss the No Action Alternative.

238-19

The importance of subsistence uses is substantially acknowledged in the Draft SEIS. For example, refer to Chapter 3, pages 74-75 in the Draft SEIS for Analysis Area 2. Here, our analysis included a bar graph which depicts per capita use of subsistence resources for 1987, and another which shows the use of resources within the VCU's. The Final SEIS also addresses the importance of these uses and also considers the public's concerns expressed in written comments and at the Subsistence Hearings. In addition, the analysis concluded that Alternative 2 and Alternative 3 would not have significant impacts on subsistence uses in Analysis Area 2. Therefore, it was not logical, or even possible, to weigh the potential insignificant impacts against significant and measurable impacts such as those on job opportunities.

The industry did provide these figures for job opportunity loss. The Forest Service would welcome any quantitative data available on potential impacts to subsistence, recreation, and fisheries, as well.

238-20

Please see our responses to Comments 238-11 and 238-12.

238-21

Please see our response to Comment 238-13 and Theme Responses 4 and 5.

RESPONSE: Letter 238

238-22

The long-term, programmatic planning of timber harvest such as the 97,912 acres scheduled for harvest by 2080, comes under the purview of the TLMP. The SEIS does not propose these activities, nor does any other planning document site specifically plan these activities at this time. The SEIS only plans a small portion of this volume. Chapter 4 of the Phase II Final SEIS does address the reasonably foreseeable long-term and cumulative effects of the proposed action. Further, the SEIS addresses what long-term and cumulative effects might result under the long-term vision of the TLMP. This discussion includes the expected long-term and cumulative effects of the proposed action alternatives.

238-23

Please see our responses to Comments 238-10 and 238-11.

**RECEIVED**

AUG 17 1989

REGIONAL FORESTER
FOREST SERVICE
JUNEAU, ALASKA

August 17, 1989

Michael A. Barton, Regional Forester
Region 10, Alaska Region
USDA Forest Service
P.O. Box 21628
Juneau, Alaska 99802-1628

Re: Comments on the Phase II Draft Supplement to the 1981-86 & 1986-90
Alaska Pulp Corporation Operating Plan for Analysis Areas 2, 3, 6, and 12

Dear Mr. Barton:

Sealaska has reviewed the above referenced Phase II Draft Supplemental Environmental Impact Statement (DSEIS). The supplemental EIS was prepared to address issues identified in the Tenakee and Hanlon federal court decisions.

- 238-1** Sealaska questions whether the Forest Service has met their obligations to disclose the impact of further harvesting under the provisions of the National Environmental Policy Act and to manage for subsistence uses under the Alaska National Interest Lands Conservation Act (ANILCA). While Sealaska's primary interests are to protect subsistence use opportunities, the lack of site-specific and cumulative effects analysis under NEPA makes it impossible to determine how subsistence uses will be affected. More specifically, we note that the DSEIS is programmatic rather than site specific, fails to consider a reasonable range of alternatives, inadequately displays resource mitigation and protection measures, does not fully evaluate the economic and social impacts of the alternatives and is based on an inadequate public involvement process. Better information and analyses are certainly possible. Prolonging this conflict through inadequate analyses is a disservice to all parties, including the timber industry who must continue to operate under uncertainty.
- 238-2**
- 238-3**
- 238-4** In the Hanlon Settlement Agreement, the Forest Service agreed to hold subsistence hearings and to use the hearing record to evaluate the effects of past, present and reasonably foreseeable future timber harvest/road construction upon subsistence users.
- 238-5** Sealaska is of the opinion that the Forest Service can only determine the impacts to a usage of forest resources, if it knows what subsistence

means to the Native and rural communities. Sealaska also believes that the Forest Service cannot effectively carry out its planning and management responsibilities, nor protect the rights of subsistence users, without a clear understanding and interpretation of what subsistence means. It is imperative that this defining/interpreting process begin immediately and, of course, absolutely critical that the Forest Service involve the Native and rural communities as they go through the defining process.

238-5
Cont.

It is also important the Forest Service go into the process understanding the difference between aboriginal rights and current user rights or it will be impossible to satisfy Native concerns. To demonstrate our faith in the administrative process, Sealaska is providing its input on this evaluation document and within the proper forum and timeframe.

Attached, immediately following this letter which summarizes our concerns about the APC DSEIS and the evaluation process, is Sealaska's detailed input by Analysis Area. Those concerns which we have listed relating to the evaluation process apply to our detailed input for each area.

APC DSEIS - DEFICIENCIES IN THE PROCESS

238-6

It appears that rather than carry out an independent evaluation to satisfy concerns raised in Federal District Court decisions, the Forest Service has instead decided to supplement both the 1981-86 and the 1986-90 EISs thus incorporating the results of those previous analyses into this SEIS document. The Forest Service, then, uses that as a reason for not performing any serious additional analyses. By tying the APC supplement to previous EISs, the Forest Service is merely able to reference those other documents repeatedly throughout the supplement as a way of explaining why a conclusion was reached or a recommendation was made rather than actually making the relevant data available for review or conducting necessary analyses.

In order for this evaluation approach to work, as far as the subsistence issue is concerned, the public must have a tremendous amount of trust that the Forest Service has always understood the social, cultural and economic implications of subsistence. Yet the Federal District Court tells us that this is not the case. Sealaska shares that opinion and therefore questions the validity of the SEIS APC document. We do not believe that the Forest Service has effectively or responsibly provided the level analysis needed to meet concerns expressed by the Federal District Court in the Hanlon and Tenakee decisions.

238-7

The SEIS is not site specific enough for us to be able to determine what impact there will be to subsistence. In addition, we are unable to determine exactly what information was used in the subsistence evaluation, how it was used, and whether it was, indeed, the best information at hand. Because the TRUC data represents the most complete database at the present time, it cannot be ignored. In fact, it is absolutely critical that it be used. However, it must be used in recognition of that fact that the data was gained in a sampling effort and represents only a minute portion of what must be documented before the Forest

238-7
Cont.

Service has a data base that will be fully useful in determining the impacts to subsistence opportunity. It is also important to remember that the TRUC data has not been reviewed and confirmed by the communities. As a result its accuracy will be subject to question.

Sealaska's official position is that the TRUC maps which were used to present information back to the communities for confirmation were inadequate because they did not include or depict anadromous fish streams, deer habitat/hunting areas in the uplands, upland gathering resource areas (i.e., berry picking, spruce root gathering, edible greens), and tideland areas vital to subsistence. Sealaska, tribal representatives and Native leaders suggested to the Forest Service that, at the minimum, maps generally depicting these areas should accompany the TRUC survey maps when presented back to the communities. In this way, communities could confirm the importance of these areas to the subsistence of their communities. These suggestions were ignored. Sealaska is becoming increasingly anxious and concerned about inadequacies in the Forest Service planning and management process as far as subsistence is concerned.

We are also concerned because we were unable to determine what effort was made to use other existing subsistence data, such as available through the ADF&G technical paper series to supplement the TRUC data. The Forest Service must recognize that the TRUC data is only one piece of a puzzle that will continue to grow and become more complete **only with a continued effort to identify and document traditional and current uses.**

Sealaska has excerpted the following from the Executive Summary document to emphasize the magnitude of the decisions that will be made based on this supplemental analysis. The Regional Forester will decide:

"If the changes in land ownership, deferrals, deletions, or changes of timber-harvest units, and the effects of ANILCA subsistence legislation warrant amending the Records of Decision for the 1981-86 or 1986-90 EISs.

If the contractual timber commitments between the date of publication of this document and December 31, 1990 (end of the 1986-90 Operating Period should be met from Value Comparison Units (VCUs) that have some existing access roads and harvest units.

If the contractual commitments are not met from previously roaded VCUs, how much additional timber will be needed and from which VCUs the timber harvest will be scheduled."

238-8

Sealaska's questions here are: **"Why does the Forest Service reference the ANILCA subsistence law as legislation when it has been law for a number of years? Do they see it as a temporary situation? Or is the language designed to downplay its importance?"** It is important enough that we must repeat again - the Forest Service must clarify its interpretation of the

238-8 ANILCA law since the Court has specifically identified this as an area where the
Cont. Forest Service is falling down in its implementation responsibility.

238-9 **Subsistence is evaluated only in terms of the reasonably foreseeable future. This is in direct conflict with court orders. We have no indication of how currently proposed activities will impact subsistence cumulatively over the long term.** The Forest Service has interpreted "reasonably foreseeable time frame" to mean until the end of the APC Long Term Contract (the year 2001). The long term time frame is addressed as extending to the end of the first complete harvest rotation (the year 2080). Cumulative effects include the effects of past harvest, existing harvest, adjacent harvest, and harvest proposed under the SEIS alternatives projected into the reasonably foreseeable future. The long term cumulative effects tier to the Tongass Land Management Plan, TLMP amendment and to the FEIS for the 1986-90 Operating Period of the Alaska Pulp Corporation. They also incorporate information from a Life of Sale Plan for the APC contract prepared in 1982 and updated in 1986. The reasonably foreseeable, long-term and cumulative effects do not depend on the alternatives presented in this SEIS. Rather they are what may be expected under the current direction planned in TLMP, the Life of Sale Plan and projected by Multi-entry Layout Process. The effects would occur under any of the action alternatives until such time as TLMP is revised.

238-10 **This statement only heightens Sealaska concerns. Please allow us to elaborate. The TLMP Forest Plan Revision Team has advised Sealaska that the Forest Service is proceeding with TLMP Revision without the TRUC data in order to accommodate and meet some administrative requirements, court orders, and legislative deliberation timelines. They have assured us that the TRUC data will be incorporated in at some later point but have not elaborated on how it will be handled. They have also assured us that there is no cause for concern because the 810 process will not allow subsistence to slip through the cracks. Yet, here in this supplemental EIS document, the Forest Service is conducting a subsistence evaluation, but is now telling us that the data and the process may be incomplete, but don't worry because the TLMP revision/prescription process will handle Sealaska concerns. We have already determined that the USFS planning process is inadequate as far as planning and managing the forest resources for subsistence as a priority use - and we are seriously concerned. We do not see any reference to the TRUC data or the technical information available from the State Department of Fish and Game.**

238-11 Forest Service staff used a trade-off evaluation process to weigh the benefits and impacts of each alternative against the issues to recommend the preferred alternative. **Because the Forest Service uses a trade-off evaluation process to weigh the benefits and impacts of each alternative against the issues and subsistence is one of the issues, it would be necessary to attach some value to subsistence uses to give them a fair footing in the process. This language is used by the USFS in the discussion of the impacts for each of the areas targeted by this supplemental EIS. Sealaska takes exception to**

- 238-12 the language, because it has the effect of a blanket rationalization which enables the USFS to make a decision without really having to explain why.

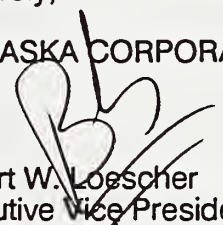
- 238-13 While the Forest Service presents some discussion of areas where subsistence use occurs, and where subsistence users come from, most of the discussion in Chapter 3 and 4 revolves around levels of use. In this manner, the Forest Service does not have to discuss subsistence uses in terms of a specific piece of land where the uses historically and traditionally occurred. This concerns Sealaska, since specific hunting, fishing, and gathering areas are important to the Tlingit and Haida people in a social, cultural and religious sense.

- 238-14 In sum, because the forest planning process is so elaborate and complicated, and because the planning area is so large, and because this supplemental is tied to so many other USFS documents, it has become almost impossible to track and assimilate the environmental, cultural, social and economic implications of the various alternatives being proposed. Whether intended or not, these complications tend to diffuse public input. Sealaska believes that the Forest Service has a responsibility to provide understandable information to the public that it is affecting. This SEIS document does not do that. Furthermore, we do not feel it is responsive to the Federal Court decision in Hanlon v Barton case. We cannot accept the Forest Service determination of no significant impact to subsistence opportunities when we have no indication that they even understand what it means to the Native and rural users.

- 238-15 We do, however, look forward to positive dialogue concerning this issue. We are continuing to keep the communities apprised of these concerns. We encourage you to consider our offer to sit and work out a solution to the subsistence situation. We have every confidence that this can be resolved administratively. However, if the Forest Service continues to take the position that it is adequately meeting its responsibilities under ANILCA as far as providing for subsistence as a priority use on the forest, we will have no recourse but to seek other avenues to address our concerns. Thanking you in advance for your consideration.

Sincerely,

SEALASKA CORPORATION



Robert W. Loesch
Executive Vice President
Natural Resources Management

RWL/AGD

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USDOI/BIA/Tribal Operations/Juneau Area Office
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Frank Roppel, APC
Jim Clark, ALA
Thyes Shaub, ALA
Southeast Conference
Jim Ayers
Southeast IRA Councils
Governor Steve Cowper
Regional Subsistence Council
State Board of Fisheries
State Board of Game
Southeast Regional Fish and Game Council
Commissioner Collinsworth, ADF&G
Southeast State Legislators
Joint State-Federal Land Use Council
Alaska Land Use Council
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Eli Hanlon, Woosh Kee Ton Clan, Tlingit Tribe

Ernestine Glessing, Hoonah, Alaska
Wanda Culp, Hoonah, Alaska
Mayor Liv C. Gray, City of Hoonah
Mayor Edward J. Gamble, City of Angoon
Mayor Donald James, Sr., City of Kake
Mayor Roy S. Williams, City of Klawock
Mayor James Sprague, City of Craig
Mayor Adrian LeCornu, City of Hydaburg
Mayor Estelle Thompson, City of Kasaan
Mayor Harry Davidson, City of Pelican
Mayor Larry Powell, City of Yakutat
Gary Morrison, Forest Supervisor USFS Chatham Area
Mike Lunn, Forest Supervisor USFS Ketchikan Area
Douglas Barber, Forest Supervisor USFS Stikine Area
Alaska Congressional Delegation

SEALASKA CORPORATION DETAILED INPUT ON THE APC DSEIS

APC DSEIS - ANALYSIS AREA 2 (MUD BAY/NEKA)

The Federal District Court decision in the Hanlon case made it necessary for the USFS to address, through this supplemental, issues raised by departures from the 1981-86 operating plan, including the deletion/deferral of harvest units on lands selected under ANCSA, to evaluate an Upper Game Creek Area no-action alternative, to provide more site specific detail on environmental effects of alternative road/harvest configurations, and to further analyze cumulative environmental impacts from the expanding network of road/harvest units in Upper Game Creek.

238-16

In this DSEIS the Forest Service uses a no further harvest alternative to meet requirements of the court decision for the consideration of a no action alternative in Analysis Area 2. Three alternatives were developed for the analysis area in order to address issues and comply with NEPA regulations while meeting the APC contract requirements. **Did USFS intend to give its contractual obligations precedence over the ANILCA subsistence priority provision which is, in fact, law.**

For Analysis Area 2, the subsistence issue is described by the Forest Service in this manner:

"Some residents of Hoonah believe past and ongoing forest management activities in the Hoonah area are affecting their ability to harvest some subsistence resources. The Forest Service is sensitive to this concern and concludes in Chapter 3 that there is enough concern and justification that a finding of significant restriction to use was appropriate. The Forest Service will hold subsistence hearings in conformance with Section 810 of ANILCA approximately 30 days following the release of the Draft SEIS. During the hearings, residents of Hoonah and other subsistence communities will have the opportunity to provide additional information concerning potential subsistence use impacts associated with the proposed timber harvest alternatives in Analysis Area 2. Comments received during the hearings will be considered during the preparation of the Final Environmental Impact Statement for the Supplement. Presently, the subsistence effects analysis in Chapter 4 indicates that the implementation of either action Alternative 2 or 3 in Analysis Area 2 would have minimal effects on subsistence users from the primary-use community of Hoonah.

The Forest Service Record of Decision preceded the passage of ANILCA. The Forest Service did perform a subsistence evaluation in conjunction with the 1986-90 Operating Period EIS. "This evaluation was challenged in the United States District Court for the Alaska District in Hanlon v. Barton. In a preliminary decision, the Federal District Court recognized the importance of the Section 810 evaluation of potential project effects on subsistence activities in an environmental analysis. In response to Tenakee Springs v. Courtwright and Hanlon v. Barton, and to ensure that the 1981-86 and 1986-90 Record of Decision fully comply with ANILCA, the Forest Service is providing site-specific subsistence evaluation in Phase II of the EIS supplement."

Hoonah residents hunt deer, goats, seals, waterfowl and other birds; trap furbearers; catch salmon and other finfish; and gather shellfish, berries, and seaweed. The annual harvest of subsistence resources was about 400 pounds per capita in 1987, dominated by salmon (26%), deer (23%), and other finfish (19%). Subsistence food provides about 50% of the household food supply.

The evaluation of potential foreseeable and long term effects on subsistence users from the primary use community of Hoonah is based on future projected timber harvest in Analysis Area 2. The 1986-90 Operating Period Life of Sale Plan (Analysis) projects than an additional 11,120 acres of National Forest timber will be harvested from the VCUs in Analysis Area 2 by 2011. During this period Huna Totem and Sealaska Corporations are projected by the Forest Service staff to have harvested an estimated 14,000 acres of timber on their lands in Analysis Area 2. TLMP estimated that 37,000 acres of National Forest lands would be programmed for harvest by 2080.

238-17

The reduction in habitat capability due to the continued timber harvest activity on National Forest and Native corporation lands will affect the availability of key subsistence wildlife species. Whether this would affect the ability of subsistence users from Hoonah to continue harvesting these species at traditional levels would depend on management of access in the areas as well as the ability of land management and wildlife management agencies to work cooperatively to maintain the opportunity for subsistence harvest. **Given our current dialogue with the Forest Service concerning its responsibility to actively manage the forest for subsistence uses and the fact that our concerns remain unanswered, this USFS statement creates additional questions in our minds whether adequate protections are accorded subsistence uses.**

Alternative 1 - "No Action - Current Direction" Option:

Activities currently authorized by the Court will continue - USFS predicts that the volume in the nondeferred VCUs will be harvested by the end of the 1989 operating season. USFS has stated that a "No Action - Current Direction" option has the same affect as a "No Further Harvest" option - both stop further road/timber activities at the time of Record of Decision thru 12/31/90. They are therefore evaluated together and used as the baseline for comparison of alternatives. While all alternatives propose to use existing LTFs, no further volume would be made available under option #1 to support the Bight or Salt Lake operations for the period ending 12/31/90. The analysis determined that this alternative would have no additional environmental impacts.

238-18

Sealaska questions whether this "No Action - Current Direction" alternative is what the Court had in mind when it directed the Forest Service to evaluate a no action alternative. The terminology "no action" implies no activity rather than "no activity other than that already authorized" which represents a bureaucratic game in our minds. When the public reviews this alternative in conjunction with impact language stating "no further impacts" or "no change", they will believe that the alternative is truly a no action alternative. What must occur in order for the public to really understand what is happening is that the impact language must be read in conjunction with the statement that "all harvest units were previously evaluated in one or more alternatives of the 1986-90 EIS". The "no further impacts" or "no change" language is therefore really intended to mean that there are "no

further impacts or changes from those impacts which were already discussed and detailed in the 1986-90 EIS alternatives". All "previously authorized" activities will, in fact, continue. Sealaska's question is "If the current direction alternative, which was already evaluated, was adequate, why would the Court direct the evaluation of a no action alternative?" In effect what USFS has done here is evaluate 3 action alternatives with the current direction option representing less activity than alternatives 2 and 3.

238-19

APC contract volume harvest averaged 6.6 MMBF from 1986-88 supporting 56 jobs (direct and indirect). The Wrangell mill relies heavily on APC contract timber; the company projects that a loss would reduce employment to a single shift (loss of 80 jobs) and would double fixed costs. The ability of USFS to meet its APC contractual obligations would be affected and could result in a breach of contract if other volume is unavailable. Sealaska questions the introduction of such information as is underlined immediately above without like effort being exerted to determine opportunity lost values for recreation, subsistence (in its social, cultural and economic context), fisheries, etc. so that the public can fairly weigh whether or not job opportunities should continue to be prioritized.

This alternative would: result in a loss of 56 jobs and \$1.3 million in salaries for volume not harvested; cause a high level of public concern; require USFS to provide volume in other APC contract areas. It could reduce the employment in Hoonah, the supply to the Wrangell mill, pulp to the Sitka APC plant, and may cause USFS to breach its contractual obligations.

Alternative 2 - Harvest 41.2 MMBF:

41.2 MMBF of timber is proposed for harvest in 31 units on 1,880 acres in VCU's 193 and 201. USFS has indicated that the harvest units were previously evaluated the 1986-90 EISs and that no new units/roads are proposed in this Supplement. The LTF at Eight Fathom Bight will be used.

Following is a summary of impacts: 5-10% bare mineral soil will be more erodible; altered noncommercial and understory species composition; change of forest species composition on 1,880 acres of commercial forest land; impact to 1,880 acres (1.6%) of original forested habitat - a cumulative harvest of 5.2% of forested habitat; 178 acres (1.1%) of original deer winter range - a cumulative harvest of 7.8%; beach fringe would not be further impacted; impact to 30 acres (0.6%) of historical streamside riparian habitat - a cumulative harvest of 5.7%; impact to 230 acres (1.4%) of prescribed old growth conditions; >90% of wildlife habitats would remain; least harvest along streams; 1 mi. of road would require AHMU protection measures; one stream crossing would require benefit/cost analysis; <25% of watersheds would be harvested with little potential for increased stream flow runoffs; small incremental additions to existing bark deposits at LTF at Eight Fathom Bight; potential for activities to affect private land, Native lands, cabins or mining claims in VCUs 193 and 201; shift of primitive and semi-primitive non-motorized and roaded modified classes in VCUs 193 and 201; visual quality objectives would not be met; no significant restriction to subsistence from proposed activities. The analysis concluded that the long-term cumulative effects of reasonably foreseeable activities may possibly restrict subsistence use. Subsistence hearings will, therefore, be held in conformance with Section 810 of ANILCA.

Harvest activity would affect recreation sites in and around Mud Bay in VCU 193, including trails, anchorages, and two cabins. The alternatives are not expected to impact recreational boaters or kayakers in Neka Bay, although increased noise and human presence may change their experience during harvest operations.

This alternative would maintain 350 jobs and \$8.1 million in salaries; the harvest volume is in the low range of that identified in Phase I of the SEIS; moderately to highly sensitive in public concern because it proposes harvest near Mud Bay, an area that is included in new Tongass timber reform legislation; is considered highly effective in implementing TLMP guidelines for LUD class III and IV VCUs.

COSTS/BENEFITS - A volume disruption of this type could impact the cost of operation at the APC Pulp Mill causing temporary shutdowns. The cost of a temporary shutdown is estimated by APC to be \$500,000 plus \$4,800 for every day of shut down.

Alternative 3 - Harvest 82 MMBF: (Tentatively identified as the preferred alternative pending public comment.)

82 MMBF is proposed for harvest from 54 harvest units on 3,448 acres in VCU's 193, 198, 100, 201 and 202. The Forest Service indicates that these harvest units were previously evaluated in one or more alternatives of the 1986 and 90 EISs and that no new units/roads are proposed in this Supplement. Alternative 3 will transfer 72.6 MMBF over the Eight Fathom Bight LTF if the West Port Frederick LTF is not used. If Port Frederick LTF is used, 49.07 MMBF will be transferred over the Bight LTF and 23.53 MMBF over the Port Frederick LTF. 8.3 MMBF will also be transferred over the Salt Lake LTF.

Following is a summary of impacts: 5-10% bare mineral soil will be more erodible than in undisturbed soils; altered forest canopy and understory species composition; impact to 3,448 acres (3%) of original forest habitat - a cumulative harvest of 6.5% of forested habitat; 178 acres (1.1%) of original deer winter range - a cumulative harvest of 7.8% of deer winter range; affect to 83 acres (1.0% of original amount) - a cumulative harvest of 8.8% of beach fringe; 74 acres (1.5%) of historical streamside riparian habitat impacted - a cumulative harvest of 6.6% of streamside habitat; impact to 449 acres (2.7%) of prescribed old growth; >90% of wildlife habitat would remain; most harvest along streams; 1 mi. road would require AHMU protection measures; <2% of watershed harvested; small incremental additions to existing bark deposits at Eight Fathom Bight, Salt Lake Bay and West Port Frederick; potential impact to private land, Native lands, cabins or mining claims in VCUs 193, 198, 200, 201, and 202; recreation not expected to increase; visual quality objectives meet in 2 of 5 VCU's; **no significant restriction to subsistence from proposed activities. The analysis concluded that the long-term cumulative effects of reasonably foreseeable activities may possibly restrict subsistence use. Subsistence hearings will, therefore, be held in conformance with Section 810 of ANILCA.**

Harvest activity would affect recreation sites in and around Mud Bay in VCU 193, including trails, anchorages, and two cabins. The alternatives are not expected to impact recreational boaters or kayakers in Neka Bay, although increased noise and human presence may change their experience during

harvest operations. In addition VCU's 198, 200 and 202 would be affected by road construction/harvest activities.

Alternative 3 would maintain 697 jobs and \$16.1 million in salaries. It involves the same activities as in Alternative 2, but adds harvest/road building activities; is **rated the highest in meeting APC contractual volume needs** projected in Phase I for the SEIS; moderate to high public concern because of proposed harvest in Mud Bay VCUs, an area that is included in new Tongass timber reform legislation; public may express concern over the cumulative effects of harvest on private land in VCU's 198 and 200 with additional harvest proposed in the same watersheds on National Forest lands; USFS staff used a trade off evaluation process to weigh the benefits and impacts of each alternative against the issues to recommend the preferred alternative.

APC DSEIS - ANALYSIS AREA 3 (FRESHWATER/WHITESTONE)

This Supplement presents site specific environmental impacts of proposed roads and harvest units in northeastern Chichagof Island (Analysis Area 3). To address issues and comply with NEPA regulations while meeting the APC Contract requirements, USFS developed 6 alternatives for the Analysis Area 3 Draft SEIS.

Hoonah residents hunt deer, goats, seals, waterfowl and other birds; trap furbearers; catch salmon and other finfish; and gather shellfish, berries, and seaweed. The annual harvest of subsistence resources was about 400 pounds per capita in 1987, dominated by salmon (26%), deer (23%), and other fin fish (19%). Subsistence provides about 50% of the household food supply. Preliminary analysis of TRUCS map data indicates that Seagull, Game and Spasski Creek areas, along with Whitestone Harbor and Freshwater Bay, are popular deer hunting areas for Hoonah residents. They also catch salmon in more than half of the VCUs. By contrast, Hoonah subsistence users trap furbearers, gather berries and trap crab in less than half of the VCUs, and they hunt waterfowl in about one-quarter of them.

Preliminary analysis of TRUCS map data reaffirms that Area 3 is an important subsistence hunting area for Hoonah residents. The map data show that 16 to 50 percent of the households surveyed hunted deer in ADF&G Minor Harvest Area 3523 (VCUs 203, 204, 205, 206), Minor Harvest Area 3524 (VCUs 207, 208, 209), Minor Harvest Area 3625 (VCUs 210, 211, 212, 213, 215). TRUCS map data show that Seagull, Game, Spasski, Gartina, Suntaheen and Iyouktug Creeks, and Indian River are key subsistence salmon streams for Hoonah residents.

In pursuing traditional subsistence resources, Tenakee Springs residents hunt deer, bear, and seals; catch salmon and other finfish; collect shellfish; and trap furbearers. The annual harvest of subsistence resources was about 340 pounds per capita in 1987, dominated by deer (39%), other finfish (24%), and salmon (14%). Subsistence provides just over 40% of the household food supply. Tenakee Springs residents hunt deer in more than 70% of the VCUs; they also trap furbearers in just over one quarter of the VCUs, and catch salmon and collect shellfish in just under one quarter of the VCUs. TRUCS map data also reaffirm that portions of Minor Harvest Areas 3625 and 3626 are important subsistence deer hunting areas for Tenakee residents. In 3625, 16 to 50% of the households surveyed hunted deer in the beach fringe of VCUs 214, 217 and 218. In Harvest

Area 3626, beach fringe was hunted 51 to 100% in VCU 220 and 16 to 50% in VCUs 219 and 221. 16 to 50% of those surveyed hunted the Indian River valley.

Although the proposed alternatives would have no major effect on wildlife, there may be potential long-term effects. Once new roads have been constructed into a previously unharvested watershed, there is likely to be pressure to continue their use in the future. The resulting activity could reduce wildlife populations or wildlife use of the habitats due to additional access for hunters, pressure to use the watershed for recreation activities, and re-entry for timber harvesting.

The long term potential for affecting subsistence users from Hoonah and Tenakee Springs is enough to substantiate a finding in accordance with ANILCA Section 810 that foreseeable activities may restrict subsistence use. This projection is based on the timber harvest schedule in TLMP and the assumption concerning potential timber harvest on the Native Corporation lands.

Alternative 1 - No Action - Current Direction

Permits the activities currently authorized by the Court to continue in nondeferred VCU's. This alternative would harvest 63.3 MMBF and construct 21 miles of road in 1989. All alternatives will use an LTF at Sealaska Creek and might use an LTF at False Bay. During 1990, Alternative 1 would harvest 42.7 MMBF and build 19 miles of road.

Summary of impacts: alteration of tree/understory species composition on 4,545 acres; impact to 84 acres of beach fringe (93% remaining); 335 acres (89%) of deer winter range remaining; 179 acres (91%) of streamside/riparian remaining; harvests 4.4% of Class I or 2.6% of Class II habitat to one side of creek and 2.6% of Class I and 1.9% of Class II to both creek sides; 1.4 miles of road would require protection measures; shift from semi-primitive nonmotorized to roaded natural or roaded modified in VCU's where harvesting occur; visual quality objectives would be met in 8 of 11 VCUs; implementation could affect key subsistence wildlife species in a portion of AA3.

Alternative 1 would support 538 jobs in the 1989 harvest season and about 363 jobs result in 1990. Volume projected for this area in the Phase I DEIS would not be met. It would require USFS to make up additional volume in other analysis area, resulting in possible breach of contract if the volume could not be made up. This alternative is considered moderate in effectiveness in dealing with subsistence issues and brown bear population viability; moderate in effectiveness to implement TLMP guidelines.

Alternative 2 - No Further Harvest Option

Involves completing all the APC 1989 operating plan harvest units/roads but defers additional units/roads pending an environmental analysis. It supports the same 538 jobs as #1 in 1989, no additional jobs would be maintained subsequently without further NEPA analysis. Alternative 2 fails to meet the minimum volume requirement projected DEIS making it necessary for the USFS to make up 100-130 MMBF to meet contract obligations. This alternative is considered the most effective in responding to concerns over subsistence and brown bear viability, but is considered low in effectiveness to implement TLMP guidelines. This option would result in the least impacts on recreation.

Summary of impacts: alteration of tree and understory species composition on 2,347 acres; impact to 20 acres of beach fringe (93% remaining); 87 acres or 91% deer winter range remaining; 97 acres or 97% of streamside/riparian acres remaining; potentially harvests 2.3% of Class I or 1.7% of Class II habitat to one side of creek and .9% of Class I and 1.5 % of Class II to both creek sides; .3 miles of road would require AHMU protection measures; shift from semi-primitive nonmotorized to roaded natural or roaded modified in VCUs; visual quality objectives would be met in 4 of 6 VCUs; implementation could affect key subsistence wildlife species in a portion of AA3.

Alternative 3 - (Tentatively identified as the preferred alternative pending public comment.)

Proposes to harvest 142.3 MMBF and construct 51 miles of system road using the Kennel Creek logging camp/LTF, the Long Island LTF, and/or a temporary LTF at False Bay if constructed. Alternatives 3 through 6 add volume to Alternative 1 volume for 1990 which can be harvested between now and 1990 if APC increases its present logging capacity. If not, this volume would carry over to support jobs in 1991. Alternative 3 provides for 672 jobs in 1990 or, if the same volume were harvested in 1990 as 1989, some volume could be carried over to 1991, providing about 494 jobs.

With the highest level of timber harvest, this option is considered the most effective at meeting the contract volume needs and the harvest level set in the Phase I DEIS; low in effectiveness at responding to concerns over subsistence and brown bear population viability; high effectiveness in maintaining community stability in Hoonah and current employment levels for the logging contractors in the area and for the Sitka and Wrangell mills; and high effectiveness for implementing TLMP guidelines.

Summary of impacts: altered tree and understory composition on 8,001 acres; 107 acres of beach fringe impacted (92% remaining); 591 acres or 88% of deer winter range remaining; 192 or 90% of streamside/riparian acres remaining; potentially harvests 8.5% of Class I or 9.8% of Class II habitat to one side of creek and 8.8% of Class I and 6.5% of Class II to both creek sides; 2.1 miles of road would require AHMU protection measures; visual quality objectives would be met in 6 of 8 VCUs; implementation could affect key subsistence wildlife species.

Alternative 4 -

Would harvest 117.3 MMBF and construct 52 miles of road using the LTF at Long Island or False Bay along with that at Kennel Creek. Alternatives 3 through 6 add volume to the 1990 volume of Alternative 1, which can be harvested between now and 1990 if APC increases its present logging capacity. This would provide about 462 jobs in 1990 (or carry over about 287 jobs to 1991).

Alternative 4 meets the minimum volume projected in the Phase I DEIS. It is considered lowest at responding to concerns over subsistence and brown bear viability; moderately effective at maintaining community stability in Hoonah and current employment levels for logging contractors and the mills; moderate in effectiveness for implementing TLMP guidelines.

Summary of impacts: 7,044 acres tree/understory species composition altered; 84 acres of beach fringe impacted (93% remaining); 433 acres or 88% of

deer winter range remaining; 192 or 90% of streamside/riparian acres remaining; potentially harvests 5.0% of Class I or 3.1% of Class II habitat to one side of creek, and 2.5% of Class I and 1.9% of Class II to both creek sides; 2.4 miles of road would require AHMU protection measures; shift from semi-primitive nonmotorized to roaded natural or roaded modified in VCU's where harvest activities are taking place; visual quality objectives would be met in 6 of 9 VCU's; implementation could affect key subsistence wildlife species.

Alternative 5 -

Proposes to harvest 117.3 MMBF, construct 55 miles of new road, and use the Long Island and/or False Bay LTFs along with the Kennel Creek LTF. Alternatives 3 to 6 add volume to Alternative #1 1990 volume, which can be harvested by 1990 if APC increases its present logging capacity. If not, volume would carry over to support jobs in 1991. 461 jobs will be provided in 1990 or 286 jobs in 1991.

Alternative 5 meets the minimum volume projected in the Phase I DEIS. It is moderate in effectiveness in responding to subsistence and brown bear viability concerns; moderate effectiveness at maintaining community stability in Hoonah and current employment levels for logging contractors and the mills; moderate in effectiveness for implementing TLMP guidelines.

Summary of impacts: 6,936 acres of tree and understory composition would be slightly altered on 6,936 acres; 84 acres of beach fringe impacted (93% remaining); 433 acres or 88% of deer winter range remaining; 192 acres or 90% of streamside/riparian remaining; potential harvest of 4.4% of Class I or 3.4 % of Class II habitat and 2.9% of Class I and 1.9% of Class II to both creek sides; 2.3 mi. of road would require AHMU protection measures; visual quality objectives would be met in 6 of 9 VCUs; implementation could affect key subsistence wildlife species.

Alternative 6 -

Proposes to harvest 99.3 MMBF, construct 39 miles of new road, and use the Long Island, Seal Creek, and Kennel Creek LTFs, and possibly one at False Bay. With the least volume, Alternative 6 would provide about 306 jobs in 1990 or carry over about 110 jobs to 1991.

Alternative 6, with the lowest volume of the action alternatives, would be moderate to high in its effectiveness at responding to concerns about subsistence and brown bear viability; moderate in effectiveness at maintaining community stability in Hoonah and the current employment levels for the logging contractors and the mills; and moderate in effectiveness for implementing TLMP guidelines.

Summary of impacts: 6.936 acres of tree/understory species composition would be altered; 84 acres of beach fringe impacted (89% remaining); greatest impact on DWR - 816 acres or 86% of deer winter range remaining; 216 acres or 90% of streamside riparian acres remaining; potential harvest of 8.4% of Class I or 3.7% of Class II habitat and 2.9% of Class I and 2.3% of Class II to both creek sides; 1.8 mi. of road would require AHMU protection; visual quality objectives would be met in 4 of 6 VCUs; implementation could affect key subsistence wildlife species.

For Analysis Area 3, the subsistence issue is described by the Forest Service in this manner:

Chapter 4 evaluated the potential site-specific effects on subsistence use that could result from implementing any of the proposed timber harvest and associated road construction alternatives in Analysis Area 3. The Forest Service analysis indicates the implementation of Alternative 2 will have minor or no effects on the availability of subsistence resources. The analysis found the implementation of Alternative 1, 3, 4, 5 and 6 could potentially affect key subsistence wildlife species in Analysis Area 3. The principal subsistence use areas that could be affected are Alaska Department of Fish and Game Minor Harvest Areas 3523, 3524, 3625, and 3626. The potential effect is primarily due to increase in accessibility resulting from proposed road construction. Much of the potential effects on the subsistence wildlife species could be offset by the road access management plan presented to mitigate the effects on brown bear. Still, the potential effects on key subsistence wildlife resources in Minor Harvest Areas 3523, 3524, 3625, and 3626. The potential effect is primarily due to increase in accessibility resulting from proposed road construction. Much of the potential effects on the subsistence wildlife species could be offset by the road access management plan presented to mitigate the effects on brown bear. Still, the potential effects on key subsistence wildlife resources in Minor Harvest Areas 3523, 3524, 3625, and 3626 is enough to substantiate a finding that the actions may restrict subsistence use in accordance with ANILCA Section 810.

In Chapter 1, the Forest Service stated they will hold subsistence hearings in conformance with Section 810 of ANILCA approximately 30 days following the release of this Draft SEIS. During the recent Tongass Resource Use Cooperative Survey, Hoonah and Tenakee Springs households expressed concerns about the potential effects to subsistence resources resulting from forestry management and fish and wildlife management activities on National Forest lands. The hearings will give Hoonah, Tenakee Springs, and other subsistence communities further opportunity to provide additional information concerning potential subsistence use impacts associated with the proposed timber harvest alternatives in Analysis Area 3. The comments received during the hearings will be considered during the preparation of the Final Environmental Impact Statement for the Supplement.

APC DSEIS - ANALYSIS AREA 6 (CORNER BAY)

This Supplement presents site specific environmental impacts of proposed roads/harvest unit in southeastern Chichagof Island, designated as Analysis Area 6. To address the issues and comply with NEPA regulations while meeting the APC Contract requirements, the Forest Service developed seven alternatives for the Analysis Area 6 Draft SEIS. Alternatives 2 through 7 propose a range of timber harvest related activities.

Forest Service staff used a trade-off evaluation process to weigh the benefits and impacts of each alternative against the issues to recommend the preferred alternative. Because the Forest Service uses a trade-off evaluation process to weigh the benefits and impacts of each alternative against the issues and subsistence is one of the issues, it would be necessary to attach

some value on subsistence uses to give them a fair footing in the process. This language is used by the USFS in the discussion of the impacts for each of the areas targeted by this supplemental EIS. Sealaska takes exception to the language, because it has the effect of a blanket rationalization which enables the USFS to make a decision without really having to explain why.

Tenakee Springs residents hunt deer, bear, and seals, catch salmon and other finfish; collect shellfish; and trap furbearers. The annual harvest of subsistence resources was about 340 pounds per capita in 1987, dominated by deer (39%), other finfish (24%), shellfish (17%), and salmon (14%). Subsistence provides just over 40 percent of the household food supply. Tenakee Springs residents hunt deer in more than half of the VCUs within the analysis area; they also trap furbearers and hunt waterfowl in just less than half of the VCUs; salmon and crab are sought in only two of the VCUs.

Angoon residents harvest deer, salmon, other fish, waterfowl, and shellfish among other resources. The annual harvest of subsistence resources was about 250 pounds per capita in 1987 dominated by deer (30%), salmon (29%), other finfish (14%), and other mammals (14%). Subsistence provides almost 45% of the household food supply. Angoon residents hunt deer in almost all of the VCU's, while they catch crab and salmon in fewer than half of them. Trapping is limited to one VCU and waterfowl are hunted in none.

Sitka residents harvest a wide variety of resources including deer, bear, goat, seal, waterfowl, furbearers, salmon, marine fish, and shellfish, among others. The annual harvest of subsistence resources was about 140 pounds per capita in 1987, dominated by salmon (28%), deer (27%), other finfish (25%), and shellfish (16%). Subsistence provides about 15% of the household food supply. Sitka residents hunt deer in all of the analysis area VCU and catch salmon in three of them.

The primary long term impacts on wildlife result from changes in habitat. Therefore, the reasonably foreseeable effects to the end of the APC Long-Term Timber Sale (year 2011) were estimated by calculating the acres of each VCU that would be harvested up to that date. It is estimated that 79 percent of the forest habitat would remain unaffected by timber harvest activities. The reduction in habitat capability due to the continued timber harvest activity on National Forest land will affect the availability of key subsistence wildlife species. Whether this will affect the ability of subsistence users from Angoon, Tenakee Springs, and Sitka to continue harvesting these species at traditional levels will depend on the ability of land and wildlife management agencies to work cooperatively to maintain the opportunity for subsistence harvest. **Again, considering the nature of recent dialogue with the Forest Service concerning subsistence, Sealaska fears that current activities will be allowed to seriously impact subsistence opportunities before the Forest Service even begins to consider an alternative management regime.**

Alternative 1 - No Action/Current Direction

Permits the activities currently authorized by the Court to continue in nondeferred VCUs. A no further harvest option, which would stop all further road/timber activities at the time of the Record of Decision thru 12/31/90, has the same effect as the no action/current direction. The USFS has therefore evaluated

them together. There would be a loss of 167 jobs and \$4 million in salaries for volume not harvested.

High level of public concern because it does not facilitate development of additional roads into new areas; lowest in effectiveness for implementing guidelines for LUD III and LUD IV areas; lowest in effectiveness for providing contract volume to APC; could reduce employment by the contractor Silver Bay Logging, reduce the supply to the Wrangell mill, and reduce the supply of pulp to the APC Sitka plant. The USFS would have to identify volume in other parts of the APC contract area and may have problems meeting its contractual obligations. There are no additional impacts from those detailed in previous analyses.

Alternative 2

Proposes to harvest 46.3 MMBF, construct 26.7 miles of road and use the Corner Bay LTF/logging camp, which is being expanded. The False Island logging camp would be reactivated and expanded and either the False Island or Sitkoh Bay LTF would be renovated. The Kadashan Road would not be connected to the road system. This option would maintain 393 jobs and over \$9 million in salaries. Volume does not meet minimum projections from Phase I. Volume would have to be made up in another harvest area.

Has the lowest risk of alternatives except No. 1, however, the economic benefits are the lowest, and the volume harvested per mile of road is low; low to moderate in effectiveness for implementing TLMP guidelines for LUD III and IV VCUs; moderately sensitive in public concern.

Summary of impacts: tree/understory species composition would be altered on 2,158 acres; impact to 155 acres or 1% of deer winter range; potentially harvest 1.6% of Class I or 1% of Class II habitat in AHMU to one side of creek and 2.7% of Class I or 6.2% of Class II to both creek sides; .4 miles of road would require AHMU protection; 7 Class I stream crossings would require benefit/cost analysis; additional logging in VCUs 236 and 239 would represent a 1,227 acres change in recreation opportunities from semi-primitive non-motorized to road modified or roaded natural; visual quality objectives would be met in 2 of 4 VCUs; minor or no effects on availability of subsistence resources.

Alternative 3

Proposes to harvest 63 MMBF, construct 31 miles of new road, use the Corner Bay logging camp and LTF, reactivate and expand the False Island logging camp, and renovate the False Island LTF or the Sitkoh Bay LTF. It would not complete the Kadashan Road. Would maintain 535 jobs and over \$12 million in salaries. Alternative 3 would also meet the minimum range of harvest projected in Phase I; has less potential for public concern than #2; is considered moderate in effectiveness to implement TLMP guidelines for LUD IV VCUs and low to moderate for LUD III VCUs.

Summary of impacts: tree/understory species composition would be altered on 2,797 acres; 155 acres or 1% of deer winter range would be impacted; 317 acres or 4% of streamside/riparian acres; potentially harvests 2.1% of Class I or 2.5% of Class II habitat in AHMU to one side of creek and 2.5% of Class I and 2.5% of Class II to both creek sides; 1.6 miles of road would require AHMU protection measures; shift from semi-primitive nonmotorized to roaded natural or

roaded modified; visual quality objectives would be met in 3 of 5 VCUs; implementation could potentially affect key subsistence wildlife species in a portion of AA6.

Alternative 4 - (Tentatively identified as the preferred alternative pending public comment.)

Proposes to harvest 63 MMBF, construct 37 miles of new road, and use the Corner Bay camp/LTF. The Kadashan Road would be completed to connect Corner Bay with the False Island road system. Would maintain 535 jobs and over \$12 million in salaries. Meets the minimum range of harvest projected in Phase I; has a high potential for public concern associated with proposed connection of the Kadashan Road; moderate in effectiveness for implementing TLMP guidelines for LUD IV VCUs and low to moderate for LUD III VCUs.

Summary of Impacts: tree/understory species composition would be altered for 2,988 acres; 375 acres or 5% of streamside/riparian acres; potentially harvests 2.6% of Class I or 1.6% of Class II habitat in AHMU to one side of creek and 3.5% of Class I and .3% of Class II to both creek sides; 1.4 miles of road would require AHMU protection measures; 15 Class I stream crossings would require benefit/cost analysis; shift from semi-primitive nonmotorized to roaded natural or roaded modified; implementation could potentially affect key subsistence wildlife species in a portion of AA6.

Alternative 5

Proposes to harvest 115 MMBF, construct 38 miles of new road, use the Corner Bay camp/LTF, reactivate/expand the False Island logging camp, and renovate the False Island or the Sitkoh Bay LTF; would not complete the Kadashan Road; maintain 975 jobs and \$23 million in salaries; exceeds the upper levels of harvest range projected in Phase I; has the greatest potential for public concern associated with harvest in Kadashan VCU 235, but does not schedule harvest in VCU 237 (Trap Bay); has been proposed for deferral or wilderness status; proposes timber/road activities in 2 VCUs (selected by Angoon) highly visible from the Chatham Marine Highway route; high in effectiveness for implementing TLMP guidelines for LUD IV VCUs and moderate to high for LUD III VCUs.

Summary of impacts: tree/understory species composition would be altered on 4,761 acres; greatest impact on deer winter range - 358 acres or 2% impacted; 461 acres or 6% of streamside/riparian acres; potentially harvests 2.2% of Class I or 2.2% of Class II habitat in AHMU to one side of creek and 1.7% of Class I and 1.9% of Class II to both sides of creek; .8 miles of road would require AHMU protection measures; 15 Class I stream crossing would require benefit/cost analysis; shift from semi-primitive nonmotorized to roaded natural or roaded modified; visual quality objectives will be met in 3 of 9 VCUs; implementation could potentially affect key subsistence wildlife species in a portion of AA6.

Alternative 6

Proposes to harvest 75 MMBF; construct 45 miles of new road; use the Corner Bay camp/LTF; complete the Kadashan Road; maintain 637 jobs and \$15 million in salaries; exceeds the upper range of harvest level project in Phase I; has

the greatest potential for public concern associated with harvest in Kadashan VCU 235 but does not schedule harvest in VCU 237 (Trap Bay); high in effective for implementing TLMP guidelines for LUD IV VCUs and moderate to high for LUD III VCUs.

Summary of impacts: tree/understory species composition would be altered on 3,230 acres; 375 acres or 5% of streamside/riparian acres; potentially harvest 2.7% of Class I or 2.3% of Class II habitat in AHMU to one side of creek and 4.1% of Class I and 0% of Class II to both creek sides; visual quality objectives would be met in 2 of 4 VCUs; implementation could potentially affect key subsistence wildlife species.

Alternative 7

Proposes to harvest 73 MMBF and construct 38 miles of new road; use the Corner Bay camp/LTF; reactivate and expand the False Island logging camp; renovate the Sitkoh Bay and Todd LTFs; would not complete the Kadashan Road; would maintain 620 jobs and \$14 million in salaries; would harvest more than the upper range volume projected in Phase I; has high potential for public concern associated with harvest in Kadashan; harvest of the Todd blowdown units has some risk resulting from lack of favor with APC and ADF&G; moderate in effectiveness for implementing TLMP guidelines for LUD IV VCUs and low to moderate for LUD III VCUs.

Summary of impacts: tree/understory species composition would be altered on 3,100; 302 acres or 1% of deer winter range impacted; potentially harvests .5% of Class I or .4% of Class II habitat in AHMU to one side of creek and .1% of Class I and .2% of Class II to both creek sides; shift from semi-primitive nonmotorized to roaded natural or roaded modified; visual quality objectives would be met in 4 of 9 VCUs; minor or no effects on availability of subsistence resources.

For Analysis Area 6, the subsistence issue is described by the Forest Service in this manner:

Chapter 4 evaluates the potential for site-specific effects on subsistence use that could result from implementing any of the proposed timber harvest and associated road construction alternatives in Analysis Area 6. The Forest Service analysis indicates the implementation of Alternatives 1, 2, and 7 would have minor or no effect on the availability of subsistence resources. The analysis found the implementation of Alternatives 3, 4, 5, and 6 could potentially affect key subsistence wildlife species in a portion of Analysis Area 6. The principal subsistence use area that could be affected is Alaska Department of Fish and Game Minor Harvest Area 3527. The potential effect on key subsistence wildlife resources in Minor Harvest Area 3527 is enough to substantiate a finding that these alternatives may possibly restrict subsistence uses in accordance with ANILCA Section 810.

In Chapter 1, the Forest Service stated they will hold subsistence hearings in conformance with Section 810 of ANILCA approximately 30 days following the release of this Draft SEIS. During the recent Tongass Resource Use Cooperative Survey, Tenakee Springs households expressed concerns about the potential effect on subsistence resources resulting from forestry management and fish and wildlife management

activities on National Forest lands. Angoon households interviewed were not as concerned about forestry management activities but were definitely concerned about the effects of hunting and fishing regulations. Sitka households were more concerned about the effects of hunting and fishing regulations than the effects forestry management activities would have on habitat. The hearings will give Angoon, Tenakee Springs, Sitka, and other subsistence communities further opportunity to provide additional information concerning potential subsistence use impacts associated with the proposed timber harvest alternatives in Analysis Area 6. The comments received during the preparation of the Final Environmental Impact Statement for the Supplement.

APC DSEIS - ANALYSIS AREA 12 (KUIU ISLAND)

To address the issues and comply with NEPA regulations while meeting the APC Contract requirements, the Forest Service developed five alternatives for the Analysis Area 12 Draft SEIS. Since the passage of ANILCA, two Section 810 evaluations have been made for most of Analysis Area 12. The first evaluation was associated with the 1986-90 Operating Period FEIS for the Alaska Pulp Corporation Long Term Sale. The second evaluation was associated with the "TTF and Camp Location for Timber Harvest Scheduled for East Kuiu Island" environmental assessment (Appendix B-1). Both 810s concluded that the proposed actions would have no or only minor potential impact on the subsistence use of Kuiu Island. In *Hanlon v. Barton*, however, the Court concluded that the Forest Service must consider the cumulative impacts on subsistence of past, proposed, and reasonably foreseeable future activities in conducting its subsistence analysis under ANILCA 810.

In pursuing traditional subsistence, Kake residents hunt deer and waterfowl, fish, trap furbearers, and gather shellfish. The annual harvest of subsistence resources was about 160 pounds per capita in 1987, dominated by deer (24%), salmon (22%), and other finfish (21%). Subsistence provides just over 20% of the household food supply.

In Point Baker, subsistence provides over 50% of the household food supply, placing the community among the Southeast Alaska communities that most rely on natural resources. Residents harvest annually about 350 pounds per capita of subsistence resources, dominated by deer (27%), salmon (26%), and other finfish (19%).

In Port Protection, subsistence provides more than 40% of the household food supply for Port Protection residents, also placing the community among those that most rely on natural resources. Residents harvest annually about 300 pounds per capita of subsistence resources, dominated by salmon (36%) and other finfish (29%) and supplemented by shellfish (15%) and deer (13%).

238-21

While the Forest Service presents some discussion of areas where subsistence use occurs, and where subsistence users come from, most of the discussion in Chapter 3 and 4 revolves around levels of use. In this manner, the Forest Service does not have to discuss subsistence uses in terms of a specific piece of land where the uses historically and traditionally occurred. This concerns Sealaska, since specific hunting, fishing, and gathering areas are important to the Tlingit and Haida people in a social, cultural and religious sense.

The Forest Service in the Environmental Consequences Chapter 4 discusses timber from private lands. "On Kuiu Island, two areas of possible land selection and two areas of potential land conveyance could affect the amount of timber available to APC. Long term cumulative effects if Sealaska Corporation were to select land in Analysis Area 12 are unlikely to result. As previously stated, 4,500 acres of land in VCU's 398 and 399 have been identified for selection by Sealaska. The probability of this land being conveyed to Sealaska is low. On the 4,500 acres that could be conveyed, the timber available for harvest is of low volume with difficult access. Given these factors, harvest intensity should not result in areas of large cutting units, similar to native logging sites."

238-22

The Forest Service is required to determine the long-term and cumulative effects of alternatives on subsistence use. Under TLMP prescriptions for the same area, 97,912 acres are scheduled for timber harvest by 2080. This level of harvest will affect habitat capability of some species inhabiting the area, including three wildlife species of interest: deer, pine marten, and land otter.

At this point, it is not known whether the foreseeable activities will affect wildlife populations to an extent that restricts subsistence users' ability to harvest those species. "The timber harvest schedule prescribed in the Tongass Land Management Plan, however, poses enough potential for affecting subsistence users to substantiate a finding in accordance with ANILCA Section 810, that foreseeable activities may restrict subsistence use. Presently the Forest Service is revising TLMP through the NEPA process. During revision, the potential affects to subsistence users from the programmatic prescriptive resource use scheduling will be addressed. Further, project environmental analyses will be required prior to harvesting additional timber beyond that proposed in this project. In those analyses, subsistence use effects will be evaluated. This information will facilitate a more precise determination of the effects on subsistence users. In the future environmental analysis processes, the Forest Service will continue to analyze potential effects to traditional subsistence uses and needs."

238-23

This statement only heightens Sealaska concerns. Please allow us to elaborate. The TLMP Forest Plan Revision Team has advised Sealaska that the Forest Service is proceeding with TLMP Revision without the TRUC data in order to accommodate and meet some administrative requirements, court orders, and legislative deliberation timelines. They have assured us that the TRUC data will be incorporated in at some later point but have not elaborated on how it will be handled. They have also assured us that there is no cause for concern because the 810 process will not allow subsistence to slip through the cracks. Yet, here in this supplemental EIS document, the Forest Service is conducting a subsistence evaluation, but is now telling us that the data and the process may be incomplete, but don't worry because the TLMP revision/prescription process will handle Sealaska concerns. We have already determined that the USFS planning process is inadequate as far as planning and managing the forest resources for subsistence as a priority use - and we are seriously concerned. We do not see any reference to the TRUC data or the technical information available from the State Department of Fish and Game.

Alternative 1 - No Action/Current Direct/No Further Harvest Option

Permits the activities currently authorized by the Court to continue in nondeferred VCUs; would have no additional environmental impacts than already

detailed in other evaluation/analyses documents which the Forest Service has tiered to this supplemental EIS; would result in a loss of 417 jobs and \$9.6 million in salaries for the 49MMBF not harvested; would result in closure of Rowan Bay for a period of time and relocation of 134 residents; would reduce the supply of wood to the Wrangell mill, resulting in a loss of 80 jobs; would reduce the supply of pulp to the APC mill in Sitka; and would require the USFS to provide sufficient volume in other parts of the APC contract area and may cause breach of contract.

Alternative 2 - West Security Bay

Proposes to harvest 74.6 MMBF, construct 27.2 miles of system roads, and use the existing LTFs and camp at Rowan Bay; proposes to harvest the least amount of timber along the stream; would maintain 637 jobs and about \$148 million in salaries; volume harvested is in the low range of that project in Phase I of the SEIS; considered low to moderate in effectiveness for implementing TLMP guidelines for LUD IV VCU's; may cause controversy because it proposes to harvest within the viewshed of a state marine park.

Summary of impact: tree/understory species composition would be slightly altered on 2,595 acres; greatest impact on deer winter range with 573 acres or .7% of existing DWR impacted; 8 acres or .5% of streamside/riparian acres impacted; potentially harvests .3% of Class I or 1.5% of Class II habitat in AHMU to one side of creek; one Class I stream crossing would require cost/benefit analysis; logging west of Security Bay would represent the largest change in recreation opportunities within a dispersed use site; visual quality objectives would be met in 3 of 5 VCUs entered; estimate six harvest units or 247 acres and 10 miles of road will require examination prior to development; subsistence - used only by Rowan Bay for food gathering.

Alternative 3 - No Name Bay

Proposes to harvest 107 MMBF, construct 37.3 miles of new road, and use the existing LTF/camp at Rowan Bay; proposes to harvest the most amount of timber along the stream; would maintain 915 jobs and \$21 million in salaries; proposes to construct the No Name Bay LTF and connect the road system between Rowan Bay and No Name Bay; is rated highest in meeting APC contractual volume needs projected in Phase I of the SEIS; proposes activities in No Name Bay, Alvin Bay, and Seclusion Harbor, which were identified as moratorium areas in proposed House Bill 1516; public concern exists over construction of a LTF in No Name Bay.

Summary of impacts: tree/understory species composition would be slightly altered on 3,120 acres; second highest impact on DWR - 408 acres or .5% of DWR impacts; 204 acres or 1.3% of inland wetlands impacted; 8 acres or 0.5% of streamside/riparian acres impacted; potentially harvests 0.6% of Class I or .5% of Class II habitat in AHMU to one side of creek; 1 mile of road would require AHMU protection measures; low-angle slide LTF at No Name Bay with low potential for impacting marine fisheries outside the sill; little impact on salmon or herring or crab; 3.3 acres of 19,800 acres of habitat will be impacted by the LTF; East Kuiu would shift from primitive opportunities to roaded setting; LTF would directly affect boat anchorage at No Name Bay; harvest proposed along Kadake Creek would affect recreation users; visual quality objectives would be met in 5 of 8 VCUs entered - No Name Bay area would be visibly altered as would areas seen inland from Kadake Creek; estimate 3 harvest units or 130 acres and 3 miles

of specified road will require examination of cultural resources prior to development; subsistence - LTF may increase competition for resources during the temporary use of the logging camp (3 to 5 years).

Alternative 4 - North Kuiu

Proposes to harvest 80 MMBF, construct 23.4 miles of new road, and use the existing LTFs/camp at Rowan Bay; should maintain 637 jobs and about \$15.8 million in salaries; is moderate in effectiveness in terms of implementing guidelines in a LUD IV area and providing the middle range volume for APC contractual needs. Alternative 4 proposes no harvest in areas of known controversy and construction of road into previously unroaded areas is minimized.

Summary of impacts: tree/understory species composition would be altered on 2,656 acres; least impact on deer winter range - 307 or .4% of existing DWR impacted; 40 acres or .3% of inland wetlands impacted; 8 acres or .5% of streamside/riparian acres impacted; potentially harvests 0.1% of Class I or 0.6% of Class II to one side of creek; 2 Class I stream crossings would require benefit/cost analysis; least impact on recreation except for Alternative 1; harvest proposed along Kadake Creek would affect recreation users; visual quality objectives would be met in 4 of 5 VCUs; this alternative causes least impact to the visual character of North Kuiu; No Name Bay would be visibly altered as would areas seen inland from Kadake Creek; estimate 3 harvest units or 130 acres and 3 miles of specified road construction will require examination prior to development; subsistence- used only by Rowan Bay for food gathering.

Alternative 5 - Threemile Arm (Tentatively identified as the preferred alternative pending public comment.)

Proposes to harvest 90 MMBF, construct 29.6 miles of new road, and use the existing LTF/camp at Rowan Bay; would maintain 766 jobs and \$17.7 million in salaries; provides for road construction and harvest units along a portion of Threemile Arm; and provides volume at the upper end of the range projected to meet APC contractual obligations.

Summary of impacts: tree/understory species composition would be altered on 2,965 acres; least impact on deer winter range - 307 acres or 0.4% of DWR impacted; 64 acres or .4% of inland wetlands impacted; 16 acres or .9% of streamside/riparian acres impacted; potentially harvest .3% of Class I or .5% of Class II habitat in AHMU to one side of creek; .3 miles of road would require AHMU protection measures; 2 Class I stream crossings would require benefit/cost analysis; least impact on recreation except for Alternative 1; harvest proposed along Kadake Creek would affect recreation users; there is an extension of road around Threemile Arm; visual quality objectives are met in 4 of 6 VCUs entered; least impact to the visual character of North Kuiu; impact to areas seen inland from Kadake Creek; visual character of northeast Threemile Arm would be visibly altered by to harvest units; estimate 4 harvest units or 150 acres and 4 miles of specified road will require examination prior to development; subsistence - used only by Rowan Bay for food gathering.

For Analysis Area 6, the subsistence issue is described by the Forest Service in this manner:

The subsistence effect analysis in Chapter 4 indicates that the potential effects on subsistence users from the primary-use communities of Kake, Point Baker, and Port Protection would be minimal. Residents of Point Baker and Port Protection perceive a potential increase in competition for subsistence resources if the log transfer facility and logging camp proposed in Alternative 3 are built. The Forest Service recognizes this, but concludes in Chapter 4 that minor impacts are likely only for the life of the temporary camp in No Name Bay.

The primary-use communities will have the opportunity to provide additional information concerning potential subsistence use impacts. As pointed out in Chapter 1, subsistence hearings are scheduled as part of the Supplement process. Comments received during the hearings will be considered during the preparation of the Final Environmental Impact Statement for the Supplement.

Appendix C-3

Forest Service Thematic Responses



THEME RESPONSE 1: PUBLIC INVOLVEMENT

Many expressed concern about public involvement in the SEIS process. Among the perceived problems were an apparent lack of public scoping, the timing and approach of the Subsistence Hearings, the availability of information, and the comment period for the Draft Supplemental Environmental Impact Statement and the Subsistence Hearings.

The State of Alaska expressed concern that the Department of Fish and Game (ADF&G) was not more directly involved with old-growth habitat issues. Concern was also raised about the opportunity for public participation in the Subsistence Hearings and the availability of the DSEIS for public comment. Comments were also made on the type of hearing used by the Forest Service. This concern is also addressed in the Theme Response 6: Planning Process.

Response:

Under CEQ Regulations, scoping is not required when supplementing an existing EIS (40 CFR 1502.9 (c)(4)). The issues remain the same as in the prior EIS and planning process. The Supplement responds to those issues. In this particular case, the Forest Service also responded to the concerns raised by the Court in the *Tenakee v. Courtright* and *Hanlon v. Barton* cases, and administrative appeals of the 1986-1990 Operating Plan and EIS.

Public comment was possible from the time that the Notice of Intent was published in the Federal Register on October 15, 1987. The Supplement was done in two Phases. Phase I, a programmatic overview of the entire APC Contract Area, was released on September 9, 1988. The public had an opportunity to review the document and to suggest additional issues to be considered during the 45-day review period. Eighteen people and organizations responded to the Phase I DEIS.

Phase II, a site-specific analysis of the four areas identified in the Phase I process, included Subsistence Hearings in 11 communities throughout Southeast Alaska. Each Hearing was preceded by an Open House, providing the public an opportunity to review all of the planning documents and view portions of the Planning Record that support the displays in the DSEIS. The Hearings provided further opportunity for people to raise issues of concern to them. SEIS Interdisciplinary Team members were present to respond to questions.

In accordance with options provided in NEPA, the Forest Service will respond to a selected sample of letters with thematic responses, and will address others more specifically. In addition to the comments received on the Phase II documents, the Forest Service received over 200 pages of testimony at the Subsistence Hearings. Again, because of volume, the Forest Service will respond to the testimony by identifying themes that represent the generic comments received and then respond to site-specific concerns raised during the Hearing process.

The State of Alaska expressed concern that ADF&G should be more directly involved with the planning and implementation process, particularly in the identification of old-growth habitat to be retained for biodiversity and to meet certain habitat needs for species considered to be old-growth dependent.

In the 1986-90 EIS, the ROD established a prescription for specific units of land that would be managed to maintain old-growth characteristics through the balance of the Operating Plan period, or until further evaluated in a NEPA process. The recently completed KPC EIS and ROD provided virtually the same prescription as the 1986-1990 APC Operating Plan. The difference in this process was that State biologists helped identify in the KPC EIS the units of land to which this prescription would apply.

The 1986-90 Administrative Record contains a letter dated August 10, 1982 to the Forest Service from Ronald J. Somerville, Director of the ADF&G Game Division. The letter states:

Your draft of a definition for Sitka black-tailed deer winter range has been thoroughly reviewed by my Game staffs in Southeastern and Southcentral. In general, the Forest Service has made an honest and generally well thought out effort to define deer winter range. I was pleased with your acknowledgement of the problem and fair appraisal of the issue, and hope that the Department and U.S. Forest Service can eventually work together in some sort of task force or study group to implement procedures to maintain deer winter ranges in perpetuity.

The letter expressed some concern at the assumptions on which the Forest Service based its definition. In conclusion, the author suggested that the Forest Service further refine its definition of deer winter range to include critical or most important winter habitat.

This concept is basic to the Department's Forest Habitat Integrity Plan, in which we have selected entire drainages for complete protection from logging recognizing the importance of essentially all forested habitat as deer winter range.

During preparation of the Supplement, ADF&G biologists were contacted and meetings were held to review additional units being considered in the planning process. Unfortunately, the meetings failed to accomplish the desired objective of obtaining cause-and-effect information to be used in the analysis of potential effects. State biologists wishing to exercise veto power for any units being considered in the Supplement, as well as units shown in non-deferred VCUs from previous EISs, made it impossible to meet their expectations of involvement. Eliminating units from further consideration before evaluating cause-and-effect relationships at that stage would have prevented the decision maker from viewing a full range of alternative harvest units. Such a practice is not consistent with NEPA direction.

The Forest Service began the notification process on the Phase II Drafts by mailing a questionnaire to 846 people and organizations on the mailing list on April 10, 1989. Those responding were asked to state a preference for an Executive Summary of the DSEIS or the entire 4-volume set. People could also choose not to respond and thus not receive any of the documents.

Of the 311 responses, 145 chose to receive only the Executive Summary, and 166 chose to receive the 4-volume set. The DSEIS and Executive Summary were mailed to the revised mailing list on June 9, 1989. The DSEIS had an initial close-of-comment date of July 24, 1989, which met the CEQ requirements of 45 days. Due to an administrative error, this comment period was subsequently extended to August 15, 1989. Notice of the revised response date was also sent to the entire revised mailing list (letter by Regional Forester Barton, dated June 30, 1989). Thus, the extension of the comment period actually provided 67 days for public review and response to the DEIS.

Both the Notice mailed with the DSEIS and the subsequent revision announced the date, time, and place of each Subsistence Hearing in the 11 communities to be visited. Formal notification was printed in all of the newspapers in Southeast Alaska, announcements were made on local radio stations, and copies of the notice were placed on local bulletin boards. We also announced the Open Houses held before each of the Hearings. The Open Houses provided opportunities for people to visit with and ask questions of the Interdisciplinary Team members who had prepared the documents being displayed. Thus, 60 days were provided for reviewing the documents and clarifying any information prior to the Subsistence Hearings or written testimony.

With regard to the timing of the DSEIS and subsequent Hearings, some people felt that the summer months were inappropriate because of commercial fishing and subsistence gathering activities. They felt that the timing of the DSEIS and Hearings discouraged active participation, thereby making the information received incomplete.

We agree that the summer months are a busy time in Southeast Alaska. But it is difficult, if not impossible, to find a time convenient for everyone. CEQ Regulations and ANILCA Section 810 require that the Forest Service provide adequate notification and provide a minimum response time. The Supplement process met these standards.

Family members, friends, or neighbors could have provided testimony for those not able to attend the Hearings. The option of submitting written testimony provided additional opportunity to comment for those who were not able to testify in person. The Forest Service received 239 written responses, and over 200 pages of testimony were taken concerning the DEISs. We believe that a meaningful response was received from the public.

**THEME RESPONSE 2:
H.R. 987**

Many of the people responding expressed concern that the Forest Service is considering alternatives that propose harvesting timber and building roads in the Trap Bay and Point Adolphus/Mud Bay areas and road construction in the Kadashan area. All of these areas are identified in pending legislation under H.R. 987 and S.B. 346 for Wilderness classification.

Comments focused on the fact that the Forest Service did not recognize the pending legislation and did not provide an alternative that considered this legislation. Respondents preferred leaving these areas alone until the Senate, in the 101st Congress, has the opportunity to consider these areas for Wilderness.

Response:

The Preferred Alternatives in the DSEIS are focused on meeting the original purpose and need outlined in Chapter 1. The interdisciplinary process that led to the selection of two preferred alternatives necessitated extensive discussion, the balancing of many factors, and some complex decision making. In continuing this process, the FSEIS and ROD will address public comments to the DSEIS. The FSEIS also provides an opportunity to do further analysis on more current issues raised since the release of the DSEIS.

H.R. 987 passed the House of Representatives on July 13, 1989. Because its passage occurred well into the DSEIS formulation, the legislation was not fully addressed. Language in the DSEIS does, however, recognize the likelihood of additional legislation and indicates a response at the time of passage in Chapter 1, page 12, for Analysis Area 3.

The No Action Alternative in the DSEIS evaluated the effects of no additional proposed actions within the areas of concern described above. In the FEIS, the Forest Service does further discuss H.R. 987. Maps and tables of data identify the locations and the effects of alternatives in these areas.

The EIS evaluates the alternatives. The purpose of the ROD is to announce the decisions of the Responsible Official and to identify precisely what interests, issues, and impacts were balanced in making the decision, with specific references to the DSEIS. The ROD announces the position being taken by the Regional Forester concerning H.R. 987.

**THEME RESPONSE 3:
BROWN BEAR**

Some respondents expressed concern about the brown bear population, particularly on northern Chichagof Island. Some believe that timber harvest, expanding road systems, and current game management regulations may threaten the viability of the brown bear.

In responding to the DEIS, the State of Alaska stated that current and proposed logging in Analysis Area 3 threaten the short- and long-term survival of the brown bear population. The State further anticipated that any additional reductions could result in closure of recreational hunting and eventually, subsistence hunting. In the opinion of State wildlife biologists, "Eventual local extinction on N.E. Chichagof is probable with continuation of current forest management direction."

The State indicates that "most experts agree" that a population of less than 300 brown bears in a closed environment will not provide for long-term population viability. Because the environment on northeast Chichagof is not completely isolated, a population of at least 150 may be viable if brown bears are not depleted in neighboring areas of the island. According to the State, the estimated current population in this area is 125 bears, with a current habitat capability of supporting 138 bears.

Response:

The DSEIS for Analysis Area 3 recognized the emerging concern for brown bear viability on northern Chichagof (Chapter 3, pages 39-41, Chapter 4, pages 28-30, 78). According to the model used in the analysis of timber harvest and road construction impacts on brown bear harvest, the most significant factor in the decline of brown bears is encounters with people (Chapter 4, page 101). Bear/human encounters have increased in northeast Chichagof. The expanding road system and linkage to the State Marine Highway system provide greater access for sport and subsistence hunting to residents from other communities as well as from Hoonah.

Sport and subsistence hunting regulations provide a legal kill rate that exceeds the population which that habitat can support over time according to the models used. (Chapter 4, page 79 and State of Alaska response to Phase II DEIS). The State also recognizes the killing of brown bears in defense of life or property.

Another factor affecting brown bears is their feeding at garbage dumps. According to testimony from the Subsistence Hearings in Gustavus, 80 percent of the sport kills take place within 1/4 mile of existing garbage dumps (Heidi Robichand, Secretary of Alaska Reform). Incineration of off-site transport of garbage is now required at logging camps, and although regulations are

set and enforced by the Department of Environmental Conservation, the Forest Service upholds these requirements.

In recent years, there has been a serious decline in brown bear numbers on northeast Chichagof Island. The Forest Service does not believe, however, that roads and timber harvest are directly responsible for the decline. Legal kills, defense-of-life kills, and illegal kills are the most significant factors affecting brown bear populations on northeast Chichagof, though the model used in the Supplement does recognize that roads on National Forest land and on private lands provide access for sport and subsistence hunters.

The DSEIS quantifies the potential additive effect of roads within the alternatives being considered (Analysis Area 3, Chapter 4, page 78-79, 101). The potential of mitigating some of the effects is also discussed under the road management plans for the area (Chapter 4, page 101). The model used indicates that seasonal or permanent closure of the lower-standard secondary roads could have a beneficial effect by reducing potential bear/human encounters. For maximum effectiveness, this mitigation measure must be accompanied by a strong State regulatory program to reduce both legal and illegal brown bear kills.

The Forest Service acknowledged the recent reduction in sport kill authorized by the State of Alaska in response to this issue (Chapter 3, pages 41-42). The State's opinion that the existing brown bear population is lower than that which is needed to maintain a viable hunting population is confusing, in light of the State's continued authorization of brown bear sport killing in Analysis Area 3. The Forest Service awaits clarification of this issue by the State. The State says that "most experts agree" that a closed population of 300 hundred bears are necessary to maintain a population. The Forest Service cannot respond to this statement due to a lack of specific citation. The data in Chapter 3 of Analysis Area 3 conclude that the brown bear population was 270 prior to any road construction or timber harvest.

Comments received suggest that the Forest Service should have included the brown bear model results for Analysis Areas 2 and 6 as well as for Area 3. The Interdisciplinary Team did not present that material in the DSEIS because brown bear viability seemed to be an issue only in Analysis Area 3. Because of public response to this issue and the potential significance of this issue in the other two analysis areas, the FSEIS has been modified to provide brown bear model data for Analysis Areas 2 and 6.

**THEME RESPONSE 4:
SITE SPECIFICITY**

Some respondents felt that the Phase II DSEIS was not site specific enough. Criticisms included that the Standards, Guidelines, and Mitigation Measures were not presented for each harvest unit; the scale of the maps used in the EIS precluded presentation of site-specific information necessary to fully evaluate impacts to streamside or riparian zones or other areas of concern; the document did not present basic display maps of soil classifications, deer winter range, or other inventory data needed to fully support the evaluations presented in the DEIS; subsistence-use information was not site specific and therefore inadequate, because the data failed to describe what the impacts of logging are likely to be or where they will take place; the State of Alaska's comments indicate the proposed harvest units were not displayed in sufficient detail to allow them to reach a finding with regard to the Coastal Zone Management Act (CZMA).

Another issue related to coastal zone management was concern about the Forest Service approach to riparian management. Specifically, the Aquatic Habitat Management Unit (AHMU) approach for protection of the stream-zone environment is being compared to the recently released policy from the National Marine Fisheries Service (NMFS). Respondents asked why the Forest Service did not, in light of new information, adopt the NMFS 30-Meter Policy for use on the Tongass National Forest. Others asked the differences between the two approaches and why the Forest Service chose the AHMU approach.

Response:

The DSEIS relies in part upon the Unit Cards developed during the planning process as the basis for describing the proposed action. The Unit Cards also contain the proposed Standards, Guidelines and Mitigation Measures for each of the harvest units. Included with each Unit Card is an evaluation of the probable effectiveness of the Mitigation Measures. The DSEIS presented an example of five Unit Cards in Appendix C-1 in Analysis Area 3 and Analysis Area 6; Appendix C-2 in Analysis Area 2 and Analysis Area 12. The balance of the cards were available for viewing in the Planning Record. Based upon the public comments on this item, all of the Unit Cards are now published in Appendix A-1 of the FSEIS.

The Unit Cards provide a large-scale presentation of inventory information, including soil, watershed, wildlife, fisheries, recreation, and subsistence data. The text and tables presented in Chapter 4 of the DSEIS display the data and analysis on which comparisons of alternatives can be based.

The Forest Service disagrees with the implication by some that maps presented in an environmental impact statement should be the basis for analysis of impacts, or that they must contain all pertinent information supporting the analysis process. The purpose of the maps used in the DSEIS is to show the juxtaposition of the proposed actions in relation to certain past and present features of the areas being evaluated. Unfortunately, some people have difficulty relating proposed harvest units and roads to terrain features shown on the maps. These features include Class I and II streams; topographic lines, slope gradient and shapes; adjacent land ownership and roads; past harvest units; and existing wildlife prescriptions for old-growth habitat conditions.

The issue of whether or not it is appropriate or necessary to display all basic resource inventory data in the SEIS is discussed in Theme Response 8. As mentioned above, Unit Cards include this data for proposed harvest units.

Subsistence concerns, including site specificity of subsistence use data, are further discussed in Theme Response 5.

The proposed harvest units were evaluated against large-scale, graphic representations of areas identified in the Tongass Resource Use Cooperative Study (TRUCS) and other inventory processes. Harvest units were displayed at the Open Houses which preceded the Subsistence Hearings. Participants were encouraged to comment on how proposed harvest units related to their subsistence use. (See the Hearing Officer's introductory remarks in the FSEIS Consolidated Appendix, Volume I, B). Each individual harvest unit was thus evaluated against known use areas, and use was further verified during the Subsistence Hearings. The results of this combined review are displayed in maps and tables in the FSEIS.

It appears that the State of Alaska relied upon information provided by the Subsistence Division of ADF&G to reach its conclusions regarding the site specificity of our subsistence information. The Forest Service is dismayed by the State's evaluation because representatives of the Subsistence Division were present at the Open Houses and viewed the data used in the Hearings.

The Forest Service concluded in the DSEIS that activities were, to the maximum extent practicable, consistent with the Coastal Zone Management Act of 1976 (See, for example, Analysis Area 12, Chapter 1, page 20). The State disagreed with the findings, stating that more site-specific information was needed before they could make their evaluation. As the basis for their evaluation, the state cited standards found in: 6 AAC 80.100 (Timber Harvesting and Processing), 6 AAC 80.130 (Habitats), 6 AAC 80.140 (Air, Land and Water Quality), and 6 AAC 80.060 (Recreation). The Forest Service wishes to reaffirm its position with the State concerning appropriate standards for consistency determinations. The following quotation is taken from a September 15, 1989 letter by Regional Forester Barton to Robert Green, Associate Director of Governmental Coordination, regarding similar concerns arising from State review of the FSEIS

and Record Of Decision for the 1989-94 Operating Plan Period for the Ketchikan Pulp Corporation:

The Forest Service disagrees with the State that the cited statutes rather than those of the State Forest Practices Act are applicable to timber harvesting and processing activities on National Forest lands for consistency determinations. The Alaska Coastal Management Program (ACMP) clearly addresses this point as follows:

6 AAC 80.100. TIMBER HARVEST AND PROCESSING. AS 41.17, Forest Resources and Practices, and the regulations and procedures adopted under that chapter with respect to the harvest and processing of timber, are incorporated into the Alaska coastal management program and constitute the components of the coastal management program with respect to those purposes.

Further confirmation that the State Forest Practices Act contains the appropriate standards for consideration of Federal consistency under the ACMP is found on page 67 of the Final Environmental Impact Statement on the ACMP which reads:

The standard (6 AAC 80.100) addresses most of the timber issues that are relevant to the coast and all of the issues that relate to the impacts of forest practices on coastal values (Emphasis added).

The letter goes on to point out that the Alaska Coastal Management Program (ACMP) applies only to State and privately-owned lands located within or directly affecting the coastal zone. The ACMP does not apply to Federal lands except through the consistency concept as stated in Section 307 (c) (1) of CZMA. This section states that Federal activities will be carried out "in a manner which is, to the maximum extent practicable, consistent with State management programs." Finally, the letter continues:

... it should therefore be instructive to look at what the ACMP requires of those who it directly regulates, i.e., private land owners contemplating timber harvesting and processing on their own lands. In terms of documentation and analysis, we believe these requirements for the private landowner are to be found at AS 41.17.090 and include the following four requirements:

- (1) A brief written description of the proposed activity;
- (2) A USGS map of the largest available scale showing the location of all proposed activities;

- (3) Proposed measures for soil conservation and reforestation; and
- (4) Evidence that the landowner and timber owner (if different from the operator) have approved the proposed operation.

Operators may provide this information to the State on forms 10-1033 and 10-1034.

For purposes of this Supplement, the Forest Service strongly believes that the level of detail provided in the DSEIS far exceeds the minimum requirements described above. This is particularly the case when private landowners' information and analysis are to determine compliance with the ACMP, while this site-specific EIS has been determined by the State to be inadequate to determine consistency. In response to the above letter, the State of Alaska has requested that the secretary of Commerce mediate the dispute over coastal zone management standards. The Forest Service intends to pursue a cooperative resolution of the State's concerns regarding CZMA consistency, with or without such mediation.

It is regrettable that State biologists did not consult the Planning Record to review the project scale maps for each harvest unit shown on the DSEIS maps. The large-scale maps identify the locations of proposed harvest. The Forest Service assumes the inclusion of all such Unit Cards in the FSEIS will facilitate the CZMA consistency analysis by the State of Alaska.

Comparison of AHMU and NMFS Riparian Zone Management Policies:

Many commentators mentioned the Aquatic Habitat Management Unit (AHMU) policy of the Forest Service, and the NMFS 30-meter policy.

The AHMU handbook, which provides process direction to establish Aquatic Habitat Management Units, was developed in response to the Forest Service National Riparian Policy (Forest Service Manual 2526.03), the Tongass National Forest Plan, and the Alaska Regional Guide Forest Service Handbook (6/86 R-10 TRANS), which provided for a prescriptive process in the use of Fish Habitat Management Units.

An interdisciplinary-team approach produced the AHMU Handbook. It was reviewed by the timber industry, State Departments of Fish and Game and Environmental Conservation, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. The AHMU process is the current policy of the Forest Service for National Forest lands in Alaska.

The NMFS 30-meter policy is rooted in a former policy statement issued in 1976 on the "Protection of Fisheries Resources During Logging Operations in Alaska." The 1976 policy called

for "a mandatory buffer zone of riparian vegetation along both banks of all salmon streams, and buffer width was to be based on resource values, topography, wind-firmness, and stream size. Some management activities (e.g., selected harvesting) could be allowed within the prescribed buffer zone" (Alaska Region Policy for Riparian Habitat Protection in Alaska, National Marine Fisheries Service 1988).

The recent 30-meter policy was developed based upon "new information and experience" (Robert W. McVey, Director, NMFS, Alaska Region 5/3/88). The language of the policy suggests its application to all forested lands in Alaska. In addition to these two approaches, the State of Alaska is continuing in discussions with industry and government agencies to develop appropriate language for riparian zone management for inclusion in the State Forest Practices Act. To date, the discussions have not provided consensus for the need of buffer zones or the extent to which such buffer zones might apply.

It is instructive to examine the particulars of these two policies:

The NMFS policy is the prescriptive result of "extensive research efforts" which concluded that a minimum of 30 meters of no-logging area is needed to provide shade and future sources of large woody debris necessary for in-stream habitat, for Class I and II Streams. The policy does not apply to Class III Streams which are ephemeral, intermittent, or have a gradient generally greater than eight percent. The policy statement is silent about Class III Streams which do not fit these descriptions. Streams are identified for protection by use of aerial photo interpretation. Definitions of Class I, II, III Streams can be found in the Forest Service AHMU Handbook.

This prescriptive solution to a perceived problem is simple and appealing to some because it necessitates less on-site evaluation. Trust in and discussions of past and current forest practices are not at issue. The policy applies to a zone which is a minimum of 30 meters. The policy states, "In some cases a wider zone is necessary to protect fisheries resources. Additional research is needed from which more site-specific prescriptions can be developed." In applying the policy to on-the-ground, site-specific situations, a biologist would have no additional rule of thumb or standard to rely upon. Moreover, a discussion of NMFS policy which accompanied the McVey letter suggests that while some situations may call for wider protection zones, others may call for zones of less than 30 meters. The policy discussion states that some "special situations" may call for the removal of riparian vegetation for "fishery habitat management" and to open the forest canopy. "In the absence of definitive research findings, buffer zone width in these areas should be set through an interdisciplinary-team approach...; however, prescriptions for harvest of streamside harvest of timber are premature pending research to determine whether there might be long-term impacts on fish habitat." In summary, NMFS policy calls for a minimum buffer of 30 meters of "undisturbed forest", yet also states that "special situations" may require either a wider or narrower buffer zone.

The Forest Service AHMU process begins with the classification of a stream as Class I, II, or III, based upon established standards. Localized data, including aerial photos, are used to make a preliminary delineation. The AHMU process then provides a set of management concerns for the biologist to consider in the development of the prescription. These concerns include: stream channel and bank conditions; temperature sensitivity; fish passage; maintenance of water quality; maintenance of existing and provision for future sources of large woody debris; timing of bridge and culvert installation; and maintenance or improvement objectives for the biological productivity of primary and secondary streams.

The process then sets objectives in each of the areas of concern for each Class AHMU. The eventual prescription, which is site specific, may or may not provide for some timber harvest within the zone. The prescriptive zone may range in width from a few feet to hundreds of feet. In addition, the AHMU process provides for prescriptions along the length of the stream and sets limitations for entry as a temperature concern. In effect, the AHMU is a prescriptive process to be used by trained field personnel to satisfactorily achieve a set of objectives.

Given that the AHMU and NMFS processes are different, is there reason to believe the results and probable effectiveness would also vary? Intuitively, the answer is yes. The AHMU prescriptions will vary with the Interdisciplinary Team (IDT) application of the process on the zone being evaluated. The zone width will vary as well as the prescriptions along the length of the stream course.

The NMFS prescriptions will not vary for the first 100 feet in Class I and II Streams (and possibly some Class III Streams) identified on aerial photos, except in "special situations." An IDT process, as yet undefined, would consider additional width requirements and could produce prescriptions that are not determinable at this time.

The Forest Service favors the current approach of the AHMU Handbook. The roots of the agency's planning process are found in NEPA and the National Forest Management Act (NFMA). Both recognize the value of exercising interdisciplinary expertise. Accordingly, the AHMU process was developed with the participation by State, Federal, and private industry representatives. This interdisciplinary process continues in the design of actual field prescriptions. This allows the IDT the flexibility to harvest along certain areas in a way that will enhance fisheries habitat. "Special techniques for selective harvesting of timber within the prescribed boundaries of the buffer zone may be beneficial in some cases for enhancing aquatic productivity" (McVey 5/3/88).

Rule-of-thumb policies such as the 30-meter NMFS policy do not provide for the potential added benefits of a more flexible policy. Instead, they attempt to reduce the risk associated with landowners who do not have the expertise to fully evaluate site-specific conditions. The latter approach also depends on future research to provide more information before harvesting (ibid).

The advantages of a site-specific policy on the other hands are explained in the Addendum to the ROD for the KPC 1989-94 Operating Period.

Adoption of the NMFS policy] would preclude site-specific options needed to tailor the final management direction to the specific characteristics of riparian areas . . . This option [is] too restrictive because management activities including fish enhancement would be precluded. An example is tree canopy reduction to permit increased solar radiation to warm streams currently too cold to be productive . . . [Adoption of this policy] is also inconsistent with the current Tongass Land Management Plan (TLMP). TLMP requires protection of habitat capability in a coordinated manner with other resource values, including timber.

The Forest Service believes that the AHMU process will consistently produce a higher-quality, more uniform result than would the NMFS 30-meter policy. A comparison of these two policies is also included in the FSEIS.

THEME RESPONSE 5: SUBSISTENCE

Introduction

After reviewing the DEIS, the State of Alaska stated, "The subsistence sections of the Draft Supplement are inadequate as written and do not appear to be an objective analysis." The State suggested the FSEIS include a full description of relevant data for public evaluation of the conclusions reached. According to the State, "The Draft Supplement does not make use of easily available subsistence-use data, nor does it include subsistence-use area maps for affected communities."

The State provided an attachment of comments from Alaska Department of Fish and Game (ADF&G) to assist the Forest Service in completing an adequate and defensible subsistence evaluation for the proposed action. In its comments, ADF&G concluded that, "Given long-term effects on fish and wildlife expected from the proposed activities we believe there is a strong likelihood that subsistence uses will ultimately be restricted as a result of the proposed activities."

Other organizations, including legal staff representing the plaintiffs in the *Hanlon v. Barton* case, cited the individual opinions of ADF&G Subsistence staff as indications of the inadequacy of the subsistence sections. Respondents felt that too little subsistence information was included or the information used was poor. Respondents also commented that the DSEIS did not include evaluations required under Section 810 of ANILCA.

While reading the voluminous individual comments and the State of Alaska comments, certain concerns became evident. They are grouped into the following topics: the data used; the planning process, including Section 810 process and requirements; the Subsistence Hearings; the lack of a social scientist on the IDT; and the definition of a subsistence user. A detailed review of these concerns, and the Forest Service response to each, follow.

Data Used

There were major concerns involving the data used by the Interdisciplinary Team. They include:

The Forest Service did not consider, or in some cases did not cite, all of the available information to support the analysis of the potential impacts of proposed timber harvest and road construction to subsistence users; according to the state, the Forest Service failed to use mapped and quantitative information for the community of Hoonah, provided by the ADF&G Subsistence Division; the information used by the Forest Service relied too heavily upon the TRUCS database. This study, which contains errors in plotting and cartography, has not undergone a thorough review process. Until the errors are resolved and the document is subjected to a complete research-findings process, the information should not be presented as a research product.

Finally, the State indicated that the DSEIS lacked detailed, site-specific displays of concentrated use areas by the communities within the four Analysis Areas and that these should be presented in the FSEIS.

Response:

The Forest service agrees that not all of the material used in the Phase II Supplement was cited. Phase I literature which was used in Phase II was not re-cited. However, the Final SEIS will have an expanded citation section and will cite materials used but not reproduced in Phase II.

Perhaps the major contention concerning the data that was not used involves the ADF&G Subsistence Division Hoonah Subsistence Research Project, started in 1986. Final maps from this project were reviewed in Hoonah by community residents and approved by the Hoonah City Council on March 17, 1987, through resolution CCR-87-02-26-05. According to an affirmed affidavit, signed by Robert J. Wolfe (Research Director, Division of Subsistence, ADF&G, State of Alaska), and Robert F. Schroeder (Research Specialist III, Division of Subsistence, ADF&G, State of Alaska) on January 6, 1989, intensity-of-use data concerning this inventory were provided to the Supplement Interdisciplinary Team. The Governor's Office, State of Alaska, as well as the plaintiffs' attorneys who used this information in *Hanlon v. Barton*, expected that the Forest Service would rely heavily upon the information reportedly provided.

The Supplement did, in fact, use information received from ADF&G. The database that was received was considered in the process. The maps summarizing the 1987 effort, received by the Supplement IDT, were used in both Phase I and Phase II. But unfortunately, not all of the supporting information described by ADF&G for the various communities has in fact been made available to the Supplement IDT by the Subsistence Division of ADF&G.

There was much criticism of the Forest Service's use of the TRUCS data. We disagree that the TRUCS data is not appropriate for use at this time. The data remain as an inventory, much as any other resource inventory. The sample was statistically designed and subsequently completed. Given the scope of the project, the numbers of people participating (both staff and community members), and the mapping scales used, some errors are highly probable, and undoubtedly exist. Because the TRUCS survey is an ongoing process, errors will continue to be corrected, and the accuracy of the data will continue to improve.

Nonetheless, the TRUCS database, exclusive of any final research findings or conclusions, remains the most recent data available for all of the communities potentially affected by the proposed actions. Based upon the scope and nature of this data, it is the most site-specific information gathered to date concerning community and subsistence resource-use areas. Sealaska Corporation concluded that although the TRUCS data is just "a piece of the puzzle", it represents the most complete database at the present time, and cannot be ignored. Sealaska added, "In fact, it is absolutely critical that it be used."

The Forest Service addressed the concerns for potential errors and lack of completed research applications at each Open House in the 11 subsistence communities visited during the Subsistence Hearings. Maps based on TRUCS data were displayed, showing specific harvest units found in areas used by 15 percent or more of the primary, subsistence-use communities in each analysis area.

The intent was to give people in potentially-affected communities the opportunity to review the data and provide additional information. The harvest units analyzed and displayed were taken from the entire pool of units being considered in the EIS. This type of information, along with the results of the Subsistence Hearings, were used in completing the Section 810 process within the FSEIS.

State biologists stated that maps of concentrated-use areas were needed so that members of affected communities could know where harvest might occur in subsistence-use areas.

ADF&G Division of Subsistence representatives Benke and Bosworth (Director of Subsistence Division, ADF&G; Regional Supervisor of Subsistence Division, ADF&G) were of the opinion that it would not be advisable to show specific subsistence-use information in the DSEIS for fear that this information would serve as a "treasure-hunt map" to subsistence areas, and would lead

to increased competition from hunters outside the community. We agreed, and therefore proposed to show only locations where harvest units being evaluated in the Supplement would intersect with TRUCS community data. This display was the focus of the Open House that preceded the Subsistence Hearings. The Forest Service is confused by the State of Alaska's response. ADF&G has repeatedly requested that information formerly thought inappropriate for publication be added to the FSEIS. In response, the FSEIS presents maps summarizing community-use areas, lists all of the harvest units within these areas by individual harvest unit, and summarizes the units by alternative. All of the TRUCS maps, along with other subsistence information, remain in the Planning Record.

Process

Most of the comments received concerning subsistence centered around the process used by the Interdisciplinary Team. Concerns within this topic included: the use by the Forest Service of the term "primary community"--some respondents felt that the agency has no authority to create such a category in its evaluation of subsistence impacts; the NEPA process of separating proposed actions from what might take place in future years; and disagreement about what the ANILCA Section 810 Requirements are and differing interpretations of how these requirements are to be met.

Response:

The Forest Service regrets having used the term "primary community" in the Draft. Our intent was to reduce the voluminous amount of data for display in the DSEIS, but this evidently caused more problems than it solved. In response to this concern, the FSEIS includes additional information concerning all communities using the analysis areas for subsistence use.

As regards the NEPA process, NEPA requires analysis of reasonably foreseeable and cumulative effects of proposed actions. For instance, in Analysis Area 3 of the Supplement we analyze the effects to the year 2011 of harvesting between 2,700 and 5,200 acres, to provide between 63,300 and 121,360 MMBF. Some people feel that reasonably foreseeable future should also include site-specific data regarding actions not being proposed at the present time. Such future projections might come from a database such as the Multi-Entry Layout Planning (MELP) analysis, where a given solution might approximate what would happen over the next 21 years if the present interpretation of the TLMP remains in effect. However, the accuracy of such a projection is highly speculative because of the requirement under NFMA that Forest Plans be revised every 10 to 15 years.

The TLMP is currently being revised. It is possible that revision efforts will provide substantial changes in how and where timber harvest and other resource-development activities may take

place. The DSEIS does provide a projection of longer-term actions, but can not do so site specifically.

To help clarify this complex relationship, the FSEIS has been modified slightly to separate the effects of proposed actions to the year 2011 from the projections made from implementing the current Forest Plan. In compliance with ANILCA Section 810 requirements, only proposed and reasonably foreseeable actions are evaluated for their possible effects upon subsistence. As further actions are proposed they, too, will be subject to NEPA analysis and Section 810 Subsistence evaluations.

It appears that the greatest need for clarification of the overall process concerns the Section 810 process. The Forest Service Handbook, which provides procedural direction for projects of this nature, is based upon the Alaska Land Use Council Guidelines.

An apparent misunderstanding among many of the respondents, including employees of the State of Alaska Subsistence Division, involved the timing within the NEPA process of the determination whether proposed activities will or will not restrict subsistence use. In the Forest Service process, the Draft EIS presents and evaluates basic data. Then, if the evaluation appears to support a finding that the proposed action may significantly restrict subsistence use, subsistence hearings are required per ANILCA Section 810.

In examining the Supplement to the previous 1986-90 Operating Plan, the Court found in *Hanlon v. Barton* that the reasonably foreseeable cumulative effects displayed in the Operating Plan had triggered the threshold, or "may" finding, and therefore subsistence hearings would be necessary. The Settlement Agreement in *Hanlon v. Barton* called for such hearings to be held.

The DSEIS needed only to substantiate that the data developed for Phase II would also support a "may" finding. The DSEIS made this conclusion clear, and supported it in several sections. The declining populations of deer, marten, and brown bear due to the combined effects of private land management, State of Alaska sport and subsistence regulations, and Forest Service activities, have led to a situation where availability of deer alone would support the "may" finding.

Following the "may" finding in the DEIS, the Guidelines call for subsistence hearings to be held. The results of the hearings and public comment on the DSEIS are then used in preparing the Final SEIS and formulating the ROD. The FSEIS must determine whether proposed actions may significantly restrict subsistence uses. If a significant possibility of significant restriction exists, certain procedural obligations are to be followed. The Forest Service must prepare three determinations for the proposed action to show that:

- a. Such a significant restriction of subsistence uses is necessary, and consistent with sound management principles for the utilization of the National Forest lands;
- b. The proposed activity shall involve the minimum amount of National Forest lands necessary to accomplish the purposes of such use and occupancy, or other disposition; and,
- c. Reasonable steps shall be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

It appears that the State assumed this analysis and presentation were required in the DSEIS, rather than the Final SEIS. We disagree, and state again that completion of the Section 810 process occurs in the FSEIS and the ROD. This analysis logically occurs after the public comment process and Subsistence Hearings have been completed.

Within the subsistence evaluation, the Supplement focuses upon a collective "we" in evaluation of past, present, and reasonably foreseeable future in making its cumulative-effects findings. The collective "we" refers to the combined impacts of private land management activities, State of Alaska sport and subsistence regulations, and Forest Service past and proposed actions. Testimony from the Subsistence Hearings indicates subsistence users recognize that collective actions have resulted in the current situation, and that proposed actions will cumulatively add to this situation. (Hoonah Subsistence Hearing Record, FSEIS Consolidated Appendix, Volume I, B-3).

Under Federal and State law, if there is currently a restriction on subsistence community use of a resource, or if potential for future restriction exists, the State of Alaska, as the responsible agency for management of fish and wildlife resources, must make appropriate adjustments in the regulations governing the fish and wildlife resources in question. The conclusions in the FSEIS assume that the State will fulfill its obligation in this regard. The Forest Service fulfills its role in subsistence issues through the FSEIS and the ROD.

Subsistence Hearings

There were two major concerns expressed about the subsistence hearings process. One was that the Forest Service should have participated in generalized, open discussions with people from the affected communities. The other was a general concern about the role of the hearings in the process of fulfilling ANILCA Section 810 requirements.

Response:

Once the need was identified, hearings were scheduled to focus on the potential impact of proposed actions on lands involving subsistence community uses. The Forest Service believed the hearings should focus on the particular concerns of the people from the affected communities, and conducted the hearings toward that end. Of particular concern in this case were the proposed harvest units and associated roads occurring in drainages identified in the Phase I and Draft Phase II as subsistence use areas. The approach we used was more focused than would be generalized, open discussions or "debates" about which areas of the Forest should or should not be entered for timber because of a perceived impact on subsistence users. The Subsistence Hearings provided mixed comments on this cause-and-effect relationship.

After the Hearings, the Forest Service process provides for completion of its ANILCA requirements in the Final EIS. This includes a determination of whether the proposed actions may significantly restrict subsistence use by way of: "reductions in the abundance of, or major redistribution of resources; substantial interference with access; or major increases in the use of these resources by nonrural residents" (FSH 2609.25-FSH 12/85 R-10 TRANS).

For additional information on the Subsistence Hearings process, see Theme Response 6: Planning Process.

Social Scientist on IDT

A member of the ADF&G Subsistence Division voiced concern that a social scientist was not included on the Interdisciplinary Team.

Response:

It is true that the IDT for the Supplement did not have the full-time assistance of a graduate social scientist. However, trained social scientists within the agency, from the ADF&G, from the University of Alaska, and from the consulting firm assisting the Forest Service with the Phase II volumes, were available for consultation by biologists on the IDT.

The Chapter 4 analysis of the DEISs was formed in close consultation with the State Subsistence Division, the Institute of Social and Economic Research at the University of Alaska, Anchorage, and a Forest Service social scientist. As is evident by the List of Preparers, the Supplement was prepared by qualified, skilled professionals; we disagree that lack of a full-time social scientist on the IDT resulted in a flawed analysis.

Definition of Subsistence User

While reading the comments, it became apparent that many people were making a distinction between subsistence hunters. For example, a distinction was made between subsistence hunters from Hoonah and subsistence hunters from other communities and logging camps.

Response:

It is our understanding of the current subsistence regulations that, within Analysis Area 3, for example, an Alaskan resident who lives and works at the Kennel Creek logging camp is as valid a subsistence hunter as an Alaskan resident of Hoonah. The same would be true for hunters from other nearby subsistence communities such as Gustavus, Angoon, or Tenakee Springs. Thus, any projections for increased Alaskan residents within the Kennel Creek logging camp or from other communities within Analysis Area 3 must all be treated as an increase in valid subsistence use. Only when the State of Alaska determines that sufficient resources are no longer available to meet the needs of all subsistence communities in any given area, can preference decisions be made (ANILCA, Section 802(2); Section 804).

To make any distinction between legitimate subsistence users is beyond the jurisdiction of the Forest Service. However, we do indicate which subsistence community-use areas are being considered for further proposed timber harvest and road construction and what the potential effects will be.

**THEME RESPONSE 6:
PLANNING PROCESS**

Numerous respondents to the DSEIS raised concerns about the Forest Service planning process.

Some believe that the Forest Service uses a 3-level process and that the Supplement is a mid-level programmatic approach that will be followed by a third level of project planning. Some thought that the fact that change takes place during implementation indicated that there is a third level of planning. Many felt that the public does not have NEPA access to lower-level planning processes. There were specific concerns about the definition of the No Action Alternative within the Supplement process.

There was criticism of the limited range of alternatives presented, in that all "action alternatives" were constrained to meet APC contract needs. Some were dissatisfied with the subsistence hearings process, feeling it was not discussion-oriented and therefore people were not able to fully articulate their concerns about forest management activities on subsistence uses. Finally,

some commentators felt that the Phase I, Phase II process was not consistent with the process envisioned in the TLMP or its 1985 Amendment.

Response:

The Forest Service planning process on the Tongass National Forest incorporates two levels of planning. The first level is the Forest Plan, which evaluates what activities are permitted to take place in given areas on the Forest. The second level is the Project Plan, which provides for a specific project being proposed on a site-specific basis. Project-level planning describes how and when an activity will take place and further describes the Standards and Guidelines to be used.

As regards change in the implementation of a selected alternative, some change does in fact take place. The DSEIS quantified the amount of change monitored to date in the implementation of the 1981-86 and 1986-90 EISs. (Phase I DEIS, Chapter 4, pages 12-15; Phase II, Area 12 as an example: Chapter 3, pages 13-14, Appendix B-2, Appendix C-3.) Such changes normally do not represent a substantial departure from the proposed action nor the decision as stated in the ROD. The Supplement contains further NEPA evaluation of proposed changes when those changes are significant, as in the deletion of an entire unit selected in the ROD (Analysis Area 12, Appendix B-2, as an example).

The Forest Service agrees there is a need to further notify interested individuals and agencies when changes of potential concern are being proposed. Direction to that effect will be placed in the ROD for the Supplement. Other minor adjustments in the location of units and roads are documented in the Planning Record on the back of the Unit Cards used in the EIS process. The "as-laid-out" information is included in the field data on the Unit Cards. These adjustments do not constitute a third level of planning, but are a continuation of the mitigation and monitoring process started once the ROD selects the harvest units for implementing the selected alternative.

The public does have access to documents which provide further information gained during the field layout of harvest units and roads. These field data are available at the Area offices in Sitka and Petersburg. The Forest Service agrees that clarifying adjustments made during any given period of time would help to reduce the level of concern in the planning process. The ROD for the FSEIS will further address this management issue.

The definition of the No Action Alternative has received increased attention since the recent Court case of *Hanlon v. Barton*. The Forest Service continues to believe that the proper interpretation of this alternative required by NEPA is no action, meaning no change from the present situation. With this definition in mind, the Supplement considered the No Action Alternative to mean continued implementation of the previous ROD for the 1981-86 and 1986-

90 Operating Plans, exclusive of those harvest units set aside during the Settlement Agreement for *Tenakee v. Courtright* and *Hanlon v. Barton* (Analysis Area 3, Chapter 2, page 3).

Comments on the No Action Alternative indicate that many believe the proper interpretation is "no action to be contemplated in the future." In response to this and the *Hanlon v. Barton* case, the Supplement provides a No Further Harvest Alternative after the ROD for the Supplement (Analysis Area 3, Chapter 2, page 22).

NEPA and the CEQ Regulations require the agency proposing an action to present its analysis of the effects of various alternatives, using the No Action Alternative as the basis for comparison. The concern being raised is that if the agency used the wrong alternative definition, then the analysis and presentation of effects would be in error and the EIS would be faulted. In the case of the Supplement, this issue is not relevant to Analysis Areas 2, 6, and 12, because in these cases the No Action Alternative and the No Further Harvest Alternative are basically the same. In Area 3, the basis for comparison is the No Action (or No Further Harvest) Alternative as described above.

The alternatives evaluated in the Supplement did include sufficient volume to meet the contractual obligations of the Forest Service to Alaska Pulp Corporation. This purpose and need was clearly stated in Chapter 1 of the Phase II DEISs. Alternatives not meeting this purpose and need would be unreasonable to consider in this EIS, the purpose of which is to address alternatives which meet the APC contract requirements. Additional information on this subject was provided in the Appendix of each Analysis Area document. In Analysis Area 12, for example, additional discussion is found in Appendix B-3.

There are differing opinions and expectations regarding the subsistence hearing process. Testimony taken at Hoonah asserts that the Forest Service should have held hearings concerning when and where to harvest timber prior to beginning the Supplement. Others indicated the Hearings should have been discussion-oriented. The Forest Service assumes this means an open-dialogue process, where the Hearing Officer would be involved in an on-going discussion with those in attendance. But the focus of such discussions would most probably extend beyond the information presented in the DEIS, which would defeat the purpose of examining the specifics of this project.

The purpose of the Hearings was to help determine which harvest units or roads being considered in any of the alternatives would have a significant possibility of significantly restricting subsistence uses. To accomplish this, a hearing must focus on areas and individual harvest units presented in the DSEIS and the proposed alternatives. This allows people to respond to one or more of the units or roads, to the alternative as a whole, or both.

The Hearings process must facilitate productive communication. Thus, a structured but informal approach which gives everyone a fair opportunity to testify is a procedural necessity. The Forest Service does not believe an unstructured, open forum would meet these needs as well as the process that was used. The Hearing Record, which is included in Appendix B of the FSEIS, indicates that those who chose to participate in the Hearings were successful in articulating their concerns.

There was concern about the purpose of Phase I and Phase II as compared to the Analysis Area language contained in TLMP and its most recent Amendment in the winter of 1985-86. The Forest Service does not agree with the implied assumption that the Supplement would necessarily fall within the TLMP project identification, Area Analysis Scheduling or Area Analysis purposes as outlined in the TLMP Amendment. The purpose of the Supplement was to provide further NEPA analysis for prior EISs covering the 1981-86 and 1986-90 Operating Periods for the Alaska Pulp Corporation Long-Term Timber Sale Contract. As such, the process requirements for this NEPA document are found in the CEQ Regulations for supplementation of existing EISs.

The Notice Of Intent announced this intent and identified the Phase I and Phase II process. The DSEIS for Phase I further described the process to be used in compliance with CEQ Regulations (Phase I DEIS, Chapter 1, pages 1-3). The Process for Area Analysis is described on page 199 of the 1985-86 Amendment: "The Area Analysis process includes the following NEPA-based steps and requirements. How this process is actually applied will vary as a function of the kind of projects that are proposed and the environmental, social, and economic factors that are peculiar to the particular MAs or VCUs." The Forest Service believes the Supplement is consistent with the process direction contained in the TLMP.

THEME RESPONSE 7: SITKA BLACK-TAILED DEER

Many people responding to the DSEIS were concerned about whether there will be sufficient deer populations to meet the present and future needs of sport and subsistence hunters. Concerns within this theme include:

Sport hunting regulations such as bag limits and seasons; competition between sport and subsistence hunters; habitat capability in harvested areas; expanding road systems that provide easier access and result in more deer harvested; adverse effects of harvesting critical deer habitat. The ability of deer to survive one or more successive hard winters was also of concern; people expressed a specific concern about the deer mortality this past winter.

Response:

Testimony from the recent Subsistence Hearing in Hoonah suggests that the current sport hunting regulations, including season, bag limits, and vehicle use for taking game, may be limiting factors in maintaining a sustained-yield of deer as the habitat capability of the area changes. ADF&G recognized and acted on this problem in the Hoonah area. Beginning in 1988, the non-subsistence bag limit was reduced from six deer to three in Minor Harvest Units 3523B, 3524, 3625, and 3626 (see Analysis Area 3, Fig. 3-2).

Competition between sport and subsistence hunters is, on the surface, easy to quantify. The public perception of this issue, however, is not as easily dealt with. In the Analysis Area 3, DEIS, page 94, ADF&G Hunter Survey data is provided. For example, in Harvest Area 35 subsistence hunting went from 1,612 hunter days in 1985 to 1,335 in 1986 and to 4,141 in 1987. This is an impressive 257 percent increase in 3 years. Considering only the subsistence community use of this Harvest Area, the competition has greatly increased. Sport hunting in this same area went from 644 hunter days in 1985, to 1,108 in 1986, to 2,266 in 1987. This represents a 352 percent increase in the same 3-year period. Combining the sport and subsistence hunting increases, a 284 percent increase in hunting days in this Harvest Area is realized.

Hoonah residents, watching the tremendous increase of hunters arriving and leaving by ferry, are greatly concerned. The Subsistence Hearing Record shows that there is considerable worry about the increasing numbers of outsiders who take away large numbers of deer.

The data on page 94 of the Analysis Area 3 DEIS suggest 28 percent of the hunters in 1985 were sport hunters, compared to 45 percent in 1986, and 35 percent in 1987. This range is not nearly as impressive as the total increase in hunters to the area. However, it is believed that the majority of hunters are sport rather than subsistence hunters from other subsistence communities.

Some who commented on the DSEIS requested Hunter Survey data for 1988. These data were not available during the formulation of the Draft, but have been made available since.

The 1988 Hunter Survey data for Harvest Area 35 are not directly comparable to previous years', because ADF&G has redrawn the boundaries of the major and minor Harvest Areas in Major Harvest Areas 35 and 36.

However, 1988 data on the total deer harvest in Area 35 do show that the percentage of that harvest which was taken by sport hunters decreased significantly in that year. The percentage of the total deer harvest which was taken by sport hunters in 1987 was 42 percent. In 1988, this percentage decreased to 29 percent.

These figures illustrate a dramatic change, most likely attributable to lower bag limits and shorter seasons established for sport hunters by ADF&G. This, in turn, suggests that ADF&G's use of its regulatory authority in setting bag limits and seasons can greatly mitigate competition between sport and subsistence hunters.

It is the State Board of Game which establishes which subsistence communities are qualified to hunt in this and other game units for subsistence purposes. The Board also establishes game limits and seasons for sport hunters.

The Forest Service believes the Supplement did an adequate job of quantifying concern about brown bears in the DEIS. Additional information and discussion of this issue can be found in Theme Response 7, the FEIS, and the ROD.

Concern for the Future

Subsistence Hearing testimony in Hoonah (testimony of Ernestine Hanlon) and the ADF&G 1987 Deer Hunter Questionnaire data from hunters within Southeast Alaska communities helped provide information on the number of deer hunters believed should be available in the future. There is clearly a desire for large numbers of deer, but this desire probably will not be met in future years. In fact, the numbers hoped for in the Hoonah area would exceed the habitat capability of the area, even without logging or road construction.

The FSEIS responds to the information provided by the users. (To compare the desired number of deer to the pre-harvest and present habitat capability, see Exhibit 2, Alaska Legal Services response to Draft SEIS, and Analysis Area 2, Chapter 3, page 31, Table 3-13, Draft SEIS).

Chapter 3 of the DSEIS shows the current habitat capability as well as the estimated capability prior to recorded timber harvest activities. Chapter 4 of the DSEIS shows the effects of the proposed action on deer habitat capability and the potential for further reducing the number of deer the area can support (Analysis Area 3, for example: Chapter 3, pages 37-38; Chapter 4, pages 24-25).

Based upon the model used, the cumulative effect of the harvest units proposed for cutting in Analysis Area 3 is an overall reduction of 1.4 percent to 3.0 percent in potential deer numbers, depending upon the alternative being considered. This is in addition to the 7.1 percent reduction resulting from past timber harvest on private lands as well as on National Forest lands. Using the ADF&G assumption that 10 percent of the total deer population is huntable, changes in habitat projected in the DSEIS would result in the loss of 8 to 19 huntable deer out of an estimated 5,329 deer in this 241,487 acre analysis area (Analysis Area 3, Chapter 1, page 12; Chapter 4, page 27). This reduction is equal to 0.3 percent to 0.8 percent of the average number of deer harvested in

the area over the past 4 years. While this reduction may not be significant by itself, it signifies added pressure upon the supply of deer demanded by sport and subsistence hunters. This subject will be discussed further in Theme Response 5: Subsistence.

The information presented in the DSEIS clearly indicates that the habitat capability of these areas is being reduced by the harvest of timber from Native Corporation lands and from National Forest lands. Additional mitigation measures resulting from public input during the Subsistence Hearings have been added to the FSEIS and ROD. These measures include permanent closure of some secondary roads, seasonal closure of some primary access roads, and the elimination of some harvest units to protect deer habitat. The Draft SEIS Chapter 4, pages 100 to 103 (Analysis Area 3) further describes mitigation measures and road management options to benefit wildlife habitat.

Some people believe that roads built during the past eight years by Native Corporations and the Forest Service have contributed to the increase in the numbers of deer harvested (Hoonah Subsistence Hearing Record, FSEIS Consolidated Appendix, Volume I, B-3).

The DSEIS shows that subsistence and sport hunting have changed as a result of increased public access. This access begins with the Alaska State Ferry system serving Hoonah, and continues with private and Forest Service road connections to the surrounding forested lands. As discussed earlier, use of the area by sport and subsistence hunters from other communities has increased. The Forest Service agrees that roads do provide easier access into areas for sport and subsistence hunters with suitable vehicles. However, the roads are also used for a variety of other purposes, such as camping, fishing, berry picking, scenery viewing, and firewood and other gathering activities.

The data and models do indicate that roads and harvesting contribute to the decline, but the Forest Service does not agree that roads or timber harvest on either private or National Forest lands have been the direct cause of the decline of deer beyond the point the model suggests is a sustainable huntable population.

Deer Winter Range

Harvest in areas identified as critical deer winter range is a concern related to the overall issue of habitat capability in harvest areas. Public response to this issue indicates that people believe the over-mature timber along the coastline provides the necessary habitat for deer to survive during occasional severe winters.

The DSEIS recognizes the value of high-volume timber stands within the winter range, particularly under the 800-foot elevation line. (See the DSEIS appendix for Suring et al. deer model assumptions and output coefficients). The DSEIS for Analysis Area 3, for example, displays the amount of old-growth habitat present in the area prior to any recorded timber

harvest, as well as the amount of this habitat remaining today (Chapter 3, pages 23-27). Data presented include both private and National Forest lands. In Chapter 4, the DSEIS further shows the amount of change in this habitat that would result from projected timber harvest on private lands, as well as the proposed harvest on National Forest lands by the alternatives being analyzed (Chapter 4, pages 13-16, 22-27). Chapter 4 concludes with estimates of possible reductions in deer numbers resulting from the various alternatives (Page 27). Chapter 2, page 92, summarizes the effects to wildlife, including deer winter range. The Forest Service believes the DSEIS recognized this issue and has adequately discussed it.

Concerns raised about the reliability of the data used in this analysis and the models used to make the evaluations presented in the DSEIS are addressed in the Theme Response 9: Wildlife Models and Data Adequacy Concerns. The FSEIS includes additional data and analysis in response to these concerns.

Snow depth and temperature were at least moderately severe in the winter of 1988. Forecasts predicted that the severe weather could result in drastically reduced deer populations. (Memo from John Schoen to Dave Anderson 1/9/89). The following information is taken from a report presented to Regional Forester Barton by John C. Capp, Director of Wildlife and Fisheries Management for the Alaska Region, dated September 7, 1989:

A Cooperative Work Statement was developed in January 1989 by the Alaska Region of the Forest Service and the Alaska Department of Fish and Game to monitor deer mortality evident during the winter of 1988-89. Concern had been expressed by the Forest Service and the Alaska Department of Fish and Game that deep snows that fell in early winter of 1988-89 might contribute to increased deer mortality. The field surveys were conducted following general guidelines provided by the ADF&G. These surveys consisted of one mile transects along or near the beach which for the most part were established by the Forest Service in the 1960's. The following is a brief summary of survey results by Area:

Chatham Area: 24 miles of transects were conducted on Baranof and Chichagof Islands. One hundred and eight dead deer were located, of which fawns comprised 37%, adults 35%, yearlings 1.8% and unknown age or sex 26%. Number of dead deer per transect were Peril Straits 13, Sitkoh Bay 11, Ford Arm 11, Slocum Arm 7, Nakwasina 7, West of Point Craven 6, N. Moser Island 5, Hanus Bay 4 and Long Bay 4.

Stikine Area: 15 miles of transects were conducted. Transects with deer included Woronkski Island 3, December Point 3, Sand Lake 1, Castle Rock 1. Transects without observed mortality included Dewey Anchorage, St. John Harbor, Anita Bay, Twelvemile Creek, Totem Bay, Threemile Arm and Bohemian.

Ketchikan Area: Six transects were surveyed, no dead deer were observed.

The implications of the observed mortality are complicated by variations in winter deer range condition (poor in some areas on Chichagof and Baranof). The data do suggest that winter mortality was slight with the exception of Peril Straights, Sitkoh Bay, Ford Arm, and possibly Nakwasina. However, even within these areas, the impact of the observed mortality is difficult to interpret without estimates of "normal" age specific deer seasonal mortality rates and success in prior breeding seasons. Any assessment of the relation of habitat type and age to deer mortality will be limited by a lack of information on deer population dynamics, winter range conditions, and deer nutrition/behavior/movements.

In summary, the winter deer kill was not as severe as had been predicted in earlier press releases.

THEME RESPONSE 8: PLANNING RECORD VERSUS EIS DISPLAY OF DATA

Comments were made concerning the need for more resource data displayed in the EIS rather than referring the reader to the Planning Record. Respondents indicated a desire to have that information at hand so they could better assess for themselves the potential resource impacts of proposed harvest units and roads.

Response:

The preparation of the DSEIS focused on providing environmental information and data useful to decision makers and the public by emphasizing the significant environmental issues and alternatives. There was a focused effort to provide an "analytic rather than encyclopedic" environmental impact statements to foster better decisions based on understanding the environmental consequences of the proposed actions (40 CFR 1500.4 (b)).

It is not practicable to reproduce literally hundreds of resource maps within an SEIS, and to do so would compromise the readability of the document. The process used by the Forest Service is consistent with 40 CFR 1500.1 (b), 1500.2 (b), and 1500.4 (a), (b), (c), and (f).

The Planning Record is the appropriate repository for all data included as reference material in the EIS process "when the effect will be to cut down on bulk without impeding agency and public review of the action" (CEQ 1502.21). This is also consistent with CEQ Regulations 1502.2, "Tiering," and 1502.21, "Incorporating by Reference." Within the DSEIS Glossary, page 10,

Planning Record (Analysis Area 3), "The record contains many forms of data, maps, reports...in the planning process." The Planning Record can be viewed at Forest Service field offices in Petersburg, and Sitka, Alaska as well as the Regional office in Juneau, Alaska.

In response to public comment, all the Unit Cards for the proposed harvest units and roads are now included in the FSEIS Appendices. These Unit Cards contain much of the additional data requested.

**THEME RESPONSE 9:
WILDLIFE MODELS AND DATA ADEQUACY CONCERNS**

Certain consensus models were used in the Supplement to determine the changing habitat capability of the forest for deer, marten, and brown bear. Concerns were expressed about using models for this purpose, as opposed to gaining more site-specific information on populations and use areas. The models used rely upon a set of data and assumptions. Some people expressed opposition to the data and/or assumptions being used.

Specific concerns included: that the models used in the Draft Supplement for deer, marten, and brown bear habitat are "not the best available...The habitat models have been overly simplified in comparison to state-of-the-art models that forecast wildlife populations." The State did not agree with the criteria used to determine deer winter range in the Draft Supplement because, "Use of such criteria results in a misleading analysis and consequent underestimation of the impact of logging on deer, and other old-growth dependent species such as marten."

Others felt that the accuracy of the habitat inventory database used for the habitat capability estimates is uncertain, and that the habitat capability models used for assessing deer, marten, and brown bear habitat need more documentation.

Finally, some pointed out that the marten habitat capability assessment did not include impacts of roading.

Response:

Those who said that the habitat models were not the best available failed to provide a precise description of what other models they were referring to. The Suring, et al. deer model, described in the Appendix of each Phase II volume, is a version of the model being developed to assess habitat capability for Sitka black-tailed deer in the revision of the Tongass Land Management Plan. (We have also added descriptive information to the FSEIS Appendix for the brown bear and pine marten models used in the DEIS.)

The variables that will eventually be used in the revision model include: habitat (overstory species, volume class and successional stage), aspect (i.e. north and south), elevation less than 800 feet, 800-1500 feet on south aspect, 800-1200 feet on north aspect and greater than 1200 and 1500 feet on north and south aspects respectively, effect of predators, and winter severity. The database that drives this model is being developed and stored in the Forest Service Geographical Information System (G.I.S.). This database was unavailable during the Phase II analysis process and is still unavailable at this time.

In preparation of the Supplement, the database that was available included: habitat (volume class and successional stage); elevation above and below 800 feet for all units in Analysis Area 12, and a sample of those units in Analysis Area 2, Analysis Area 3, Analysis Area 6; effect of predators; and winter severity. Only winter range was evaluated during the SEIS effort, because winter is assumed to be the most limiting season for Sitka black-tailed deer throughout the area (Hanley and McKendrick, 1985). The coefficients for the model are described in the Appendix of the Supplement, along with a discussion of the variability of the data. The deer model can be applied to a specific site for evaluating probable impact to habitat capability for periods of 0 to 25 years and for periods in excess of 25 years.

The additive effects of harvest units within a give VCU were thereby calculated and presented in the DSEIS . The balance of the VCU capability in unharvested timber stands and the cumulative changes of past, present, and reasonable foreseeable effects were also calculated and displayed. A sensitivity analysis of the various model elements was also provided in Table 2 of the model description.

Is this the best, state-of-the-art model available? Was it the only model that could have been used? The Report to the Interagency Wildlife Habitat Technical Committee, Evaluation of Deer Models for Southeastern Alaska (T.A.Hanley, M.D. Kirchhoff, L.H. Suring: 1986), discusses three models and compares them in terms of their purpose, major assumptions, scope of use, testability, and potential usefulness for forest management. "The 3 models are: (1) the correlational model of the Alaska Department of Fish and Game (Schoen et al. 1985); (2) the Habitat Suitability Model of the Ketchikan Area of the Tongass National Forest (Suring and Prather 1985) which was the initial version of the model used in the Supplement; and (3) the Southeast Alaska Multiresource Model (SAMM) of the Pacific Northwest Experiment Station (Fight et al., in prep)."

The model used in the Supplement was based on Suring and Prather's 1985 model. The conclusions reached in this paper can be summarized as follows: "Each of the three models has its own unique strengths: simplicity and quick predictions in the case of the habitat preference model; ability to facilitate communication and cooperation in the case of the habitat suitability model; and the conceptual approach of cause-and-effect relationships leading to greater knowledge in SAMM. Each also has its weaknesses. The major weaknesses principally involve

the underlying assumptions, lack of data (too much speculation), and/or inability to test the model."

On the surface, the SAMM is "by far the most realistic and conceptually-sound approach of any of the three current models. Because data on many of the key relationships are nonexistent or incomplete, however, the model is mostly speculative. And despite its already great complexity, most of the key relationships are highly simplified representations of complex processes. SAMM is meant to be applied at a landscape level and over a period of several years ... but it is unlikely that SAMM will be a good predictive model, at least not in the near future."

In theory, the "state of the art" in modeling may very well be the SAMM approach. But the model is data intensive and would have to be loaded using information less precise than the output of the model would suggest.

The Supplement chose to use a more simplified model which also has its weaknesses. "The testability of this model is the lowest of all three current models. Very few of its key relationships can be tested independently. More importantly, the procedure used for combining independent coefficients into one final matrix makes the model virtually untestable ... Only through repeatedly satisfactory trials over a wide range of possible conditions can confidence be obtained in the model's validity. An additional, major complication is that, like the habitat preference model, predictions of potential relative carrying capacities are not comparable to estimates of relative existing densities of deer." Hence a conclusion that none of the available models is inherently better than another.

The Supplement required a model that could rapidly evaluate deer habitat data and communicate that data in clear and relevant terms. The IDT believes the latest version of the Suring, et al. model meets those requirements. The model was developed by a joint task force of biologists from the ADF&G and the Forest Service, and represents a consensus approach to current modeling needs.

A question remains as to the adequacy of such models for project planning efforts such as the Supplement. Section 1502.22 of CEQ Regulations addresses "incomplete or unavailable information". The test appears to be whether the available data adequately supports a reasoned choice among alternatives being evaluated in the EIS. The desire for more precise information to drive models such as Suring, et al. is commonly stated. The Supplement IDT believes the data and model used pass the test of providing a common basis for supporting a reasoned choice among the alternatives being analyzed in the Supplement.

Brown Bear Models

A consensus brown bear model, developed for the TLMP Revision effort, was used to evaluate the current situation in Analysis Area 3 and to project possible future impacts of proposed Supplement actions (USFS 2600 memo to Newhouse by Suring, 2/10/89. See FSEIS Appendix). The habitat suitability section of the model is sensitive to: forest type (>30 MBF/acre; 8-30 MBF/acre; non-commercial forest; second growth forest; clearcut; other). The coefficients presented are based upon work done by John Schoen, Alaska Department of Fish and Game (1988 Habitat Capability Model for Brown Bear in Southeast Alaska Draft). Suitability index values were then modified for road density impact and mortality factors. Mortality factors include habitat distance to villages, logging camps, and open garbage dumps. The summary of results from the model provides an estimate of numbers of bears by VCU, followed by projected decline in numbers of bears for disturbance effects of camps, villages, and roads.

In Analysis Area 3, the model projected a current habitat capability of 292 bears, which then declines to 131 bears based upon present disturbance effects. Is this model the "best available"? (See the above discussion evaluating deer models). The Supplement IDT believes this model is the only model in existence pertaining specifically to brown bears in Southeast Alaska. The reader is reminded of previous discussions concerning the weaknesses of all such predictive consensus models.

Pine Marten

The pine marten model used in the DSEIS (Assessment of Winter Habitat Capability for Marten in Southeast Alaska, Suring, et al. 1988, 3/20/89 Review Draft) has been added to the FSEIS Consolidated Appendix. The variables incorporated into the model include: habitat (upland, beach/riparian, timber volume class, four successional stages of seedling/sapling, poletimber, young growth sawtimber and old growth); elevation less than 800 feet, 800-1500 feet, greater than 1500 feet; road density.

The database available at the time of the DSEIS did not include all of these variables, so the model was modified to use the data that was available. Data missing at the time of the DSEIS included: upland v.s. riparian/beach; two second growth categories, elevations above 1500 feet, and road density. Of these, road density data are now available and are further evaluated in the FEIS. The output of the model used in the DSEIS for Analysis Area 2, 3 and 6 is a weighted index value and the number of marten varies by habitat. The weighting of values is based upon the proportion of habitat above and below 800 feet elevation, as sampled on seven quadrangle maps. The index value and number of marten for Analysis Area 12 were based upon the G.I.S. database for the entire Analysis Area.

Is this the best pine marten model available? See the previous discussion on deer models. To the direct knowledge of the Supplement IDT, this is the only model in existence specific to pine marten in Southeast Alaska. However, the literature cited does rely heavily upon pine marten research done outside of Alaska. The reader is reminded of previous discussions concerning the weaknesses of all such predictive consensus models.

The Forest Service assumes the concern about the criteria used to determine deer winter range applies to the sampling process used in the Supplement to determine the amount of acres already cut in Analysis Area 2, Analysis Area 3, and Analysis Area 6 that fall above and below the 800 foot elevation criterion. The Forest Service performed a 100 percent sample of all existing harvest units within the quadrangle with the highest amount of timber harvest in Analysis Area 3. Similarly, the northeast, northwest, and southeast portions of the most heavily harvested quadrangle in Analysis Area 2 was 100 percent sampled, as were three 1/4 quadrangles in Analysis Area 6. The sampling process used was for past harvest figures only, and thus would not influence the projected effect for proposed harvest units.

There are some State biologists who feel that this sampling process may have produced invalid results. It is unlikely that any sampling process will provide a totally accurate representation of the whole. In the case of Analysis Area 3, the Planning Record shows 7,744 acres harvested prior to the analysis. Of this total, 4,778 acres occurred in the Sitka D-4 Quadrangle. The Supplement evaluated 100 percent of these units for the variable of above and below 800 foot elevation for use in the model. Thus, the sample for the entire Analysis Area 3 was 62 percent of the total acreage harvested to date. The potential impact of a significant error in this one part of the model can be assessed by reviewing Chapter 3, pages 37-18, which provides an estimate of change in deer numbers in percent, as a result of past timber harvest.

On National Forest lands, the current range of change is 0 to 15.4 percent with an average of less than 5 percent for the 18 VCUs listed. Thus, if the 62 percent sample used provided, by some slight chance, a dramatic error in evaluating the past harvest units in relation to the 800 foot elevation variable, only 5 percent on average of the potential deer numbers within this one portion of the model might be affected.

In the absence of more precisely stated concerns, the IDT concludes that this sample was adequate to support the model evaluation of past harvest impact upon deer winter range. Further, the IDT concludes the database used would provide consistent evaluation of one alternative against another alternative within the Supplement. For purposes of comparison, then, the model used was adequate.

The basis for concern about the accuracy of the habitat inventory database relates to the timber database displayed in the Supplement and prior information provided to the State of Alaska concerning the TLMP timber points information.

The Supplement in Analysis Area 12 displayed MELP data that was acquired during project planning efforts on Kuiu Island. This data is primarily from stand examinations which are statistically sound for sampling the localized timber types. These examinations do not provide a statistically sound sample for the whole Forest, but can provide verification data for individual photo point interpretations made during the TLMP process.

TLMP points data were statistically designed to provide information necessary to calculate the Allowable Sale Quantity from the forest as a whole. The data are not statistically sound for use at the project level, but do provide baseline data for comparison of alternatives being compared at a VCU level. The Supplement is designed to analyze the more site-specific information, where available, in projecting effects of proposed actions. For Analysis Area 12, this meant using MELP data in the Supplement. Analysis Areas 2, 3 and 6 did not have the stand examination information available in sufficient quantity to support its use in the Supplement. Therefore, TLMP points data was used as the baseline for comparison of alternatives.

A second part of this concern relates to difference in TLMP data supplied to the State of Alaska in April of 1987 and the TLMP data presented in the Supplement. On the surface it would appear that TLMP timber data would not change over time. The TLMP data provided to the State in 1987 was digitized Timber Type Map information. The Supplement used TLMP Photo Points data. There is a difference between the two databases. Timber Type data is basic inventory information which, as the term suggests, types the timber stands on a forest-wide basis. It maps 100 percent of the timber stands based upon a Continuous Forest Inventory process. This database is the most intensive timber information available, but contains no other resource data, nor does it address the operability of the timber being inventoried. As such, it can not be used to extrapolate resource interaction data for cumulative effects analysis.

TLMP Photo Points data are a statistical sample of land type information which considered timber as well as other resource information, such as wildlife habitat and visuals. This database also sampled the operability of the timber being evaluated. The Photo Points were taken on a random grid basis where each photo point represented approximately 80 acres. Thus, the Photo Point process became the basis for multi-resource evaluations in the TLMP process and provided a similar basis for project planning efforts such as the Supplement. The databases are therefore different, and should not be expected to provide exactly the same information.

Definition of Winter Range

The definition of winter range used in the 1986-90 EIS is subject of discussion within the Appeal process for that EIS (ongoing). Volume III, page GL-2, provides the definition for winter range as found in the 1986-90 Wildlife Resource Report. Exhaustive discussion of this issue can be found in the Administrative Appeal Record for the Alaska Chapter of the Wildlife Society

Appeal, pages 48-62, incorporated here by reference to avoid voluminous presentation of material. Given the deer model used in the Supplement, the issues raised in this appeal are essentially moot. The variables the model relies upon for predicting cause-and-effect relationships no longer rely upon, "(a) overstory characteristics which increase snow interception, (b) productive plant understories, and (c) certain elevational and distance-from-coast constraints." (Appellant Reason II.C.1.2a, page 48.)

The pine marten model used did not include the effects of roading. See prior discussion. However, even with the absence of modeling road impacts in the DEIS, the Supplement recognized the potential effects of roading upon this furbearer (Analysis Area 3, Chapter 3, page 43, Chapter 4, page 28 and 78). The issue of road access providing additional opportunities for trapping is now quantified within the model and presented in the FSEIS.

The Forest Service would agree that road access is the limiting factor to pine marten populations. The roads provide access to trappers, as well as to other forest users. State game regulations provide for the amount of animals taken for their fur in any given year, and describe how these animals may be taken. The use of motorized vehicles for this purpose is currently an authorized practice under State regulations. Together, the policies of the State and the forest road-use policies of private corporations as well as the Forest Service will be instrumental in determining future pine marten populations within the analysis areas covered by the Supplement.



Appendix C-4

Summary of Public Concerns



Summary of Public Concerns

The Forest Service received a total of 239 written comments on the Draft SEIS. In reviewing these comments, we found that most of the issues of public concern fell within several broad categories, or "themes". We have utilized the option under CEQ regulations 40 C.F.R. 1503.4(b) to summarize the content of public comments when response is exceptionally voluminous. Seven letters were chosen for detailed individual responses and the remainder are dealt with thematically.

Most of the comments were concerned with proposals to harvest timber in areas that are currently under Congressional consideration for designation as Wilderness. The next most frequently cited concern was in regard to timber harvest in subsistence use areas. Some comments touched on the public involvement process associated with this SEIS process, particularly the timing of the Subsistence Hearings. A few of the letters expressed concern over brown bear viability. Some comments expressed general opinions about forest management issues and practices, and did not pertain to substantive issues within the scope of this SEIS.

A summary of the major themes and our response to each can be found in the Consolidated Appendix, Volume II, C-3.

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
1	Avrum M. Gross Gross & Burke						
2	William Dunn						
3	Robert Fagen		✓				
4	John R. Howe		✓			✓	
5	Randall W. Wiest		✓			✓	
6	Luann McVey		✓			✓	
7	Darryl Evans		✓				
8	Don Bremner Yakutat A.N.B. Camp		✓				
9	Mike Rieves		✓			✓	
10	Martin Hansen		✓			✓	
11	Tom Jacobsen		✓			✓	
12	Adam Rubke		✓			✓	
13	Robin Hiersche					✓	

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
14	Robert Reinaker		✓				
15	Patricia Sever		✓			✓	
16	Florian Sever	✓	✓			✓	
17	Florian Sever Foundation for the Protection of the Common People	✓	✓			✓	
18	Angella Gibbons Glacier Bay Sea Kayaks		✓				
19	James R. Mackovjak Point Adolphus Seafoods		✓				
20	Terry Romero		✓				
21	John Geldhof		✓				
22	Richard A. Steele		✓			✓	
23	Tim Blust		✓			✓	
24	Nancy Barr		✓			✓	
25	Ernestine Hanlon		✓			✓	
26	Rosalind Kaplan, MD		✓				
27	Scott D. Brylinsky		✓				
28	Lawrence Kaplan, MD		✓				
29	David Lesh Gustavus Inn		✓				
30	Barbara D. Tipton		✓				
31	Doug Bridge Glacier Bay Sea Kayaks		✓				
32	Bonnie Kaden		✓				
33	Judy Brakel		✓			✓	
34	Becky Long		✓			✓	
35	Alice C. Hanson		✓			✓	
36	John Schultz		✓			✓	
37	Beverly Richardson		✓				
38	Bruce Blake		✓			✓	
39	Marilyn Kwock		✓			✓	
40	Doris L. Howe	✓	✓			✓	
41	Kara Berg		✓				
42	Gregory P. Streveler		✓				
44	Robert L. Mills		✓				

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
45	Jimmy Rosenbruch Glacier Guides, Inc.		✓				
46	Donald Greenberg		✓			✓	
47	George Wuerthner		✓			✓	
48	Lois G. Hiller						
49	Judy Mosset		✓				
50	Krys Cianciarulo		✓				
51	Bill Glude		✓			✓	
52	Frank Norris		✓			✓	
53	Frank L. Spreyer		✓			✓	
55	Elinor B. Harvey, MD		✓				
56	Donald K. Freedman		✓				
57	Katya Kirsch		✓			✓	
58	J. Ebbem		✓				
59	Kent Bover		✓			✓	
60	Sheri L. Donaldson		✓				
61	Hansjorg Wyss		✓				
62	Mr. Kim Turley		✓			✓	
63	Kate K. Stafford Dragonfly Studios		✓				
64	Jim Rehfeldt		✓			✓	
65	N. A. Roth		✓			✓	
66	Don Muller		✓			✓	
67	Marie E. Popomil		✓				
68	Richard M. Farnell		✓			✓	
69	Francis M. Wheat		✓			✓	
70	Rex Blazer Northern Alaska Environmental Center		✓			✓	
71	Eldon & Pauline Lee Pollee Artworks		✓				
72	Peter Branson	✓	✓			✓	
73	Patricia Redmond, PE Michael Redmond, PE		✓				
74	Dean & Edna Williams		✓			✓	
75	Chris S. Kent		✓			✓	

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
76	Lesley S. Kempself		✓			✓	
77	Doris Borhauer		✓			✓	
78	James F. Ginley	✓	✓				
79	Mollie Matteson		✓			✓	
80	Maureen Johnson		✓			✓	
81	Jan Cianciarulo		✓				
82	Cathie Radman		✓			✓	
83	Lois & Ward Irwin		✓			✓	
84	Stan Renfro		✓			✓	
85	Tom Bean		✓				
86	Tom O. Moody		✓			✓	
87	Chuck Rice Heidi Robichaud		✓	✓			
88	Rebecca J. Knight		✓			✓	
89	Priscilla Luckow		✓				
90	Ellin London		✓				
91	Bernard Davis		✓				
92	Lori-Anne Russo Bruce Abedon		✓				
93	Mike Mosset		✓			✓	
94	Robert Barnack		✓				
95	Richard A. Givens		✓			✓	
96	Janet Wallin		✓			✓	
97	Gale Page Smithsonian Air & Space		✓			✓	
98	Hector & Grace Ceschi		✓			✓	
99	Frances H. Waid		✓			✓	
100	Mr. & Mrs. Philip C. Hoffman		✓			✓	
101	Curt Terall		✓			✓	
102	Jerry Dzugan Alaska Wyldewind Charters		✓			✓	
103	Conrad Muller		✓				
104	Natasha I. Calvin	✓	✓			✓	
105	Richard Powers						
106	Richard C. Wilson		✓				

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
107	Doris A. McKee		✓			✓	
108	Robert McKee		✓			✓	
109	Syd Wright		✓				
110	Peter & Linda Enticknap		✓				
111	Evelyn K. Shearer		✓				
112	George Imbsen		✓			✓	
113	Gene H. Skorbo		✓			✓	
114	Frank Smith		✓			✓	
115	June Weinstock		✓			✓	
116	Sarah K. Highland		✓			✓	
117	Lucille Merrill		✓	✓			
118	Harry & Jean Brown		✓				
119	Richard K. Nelson		✓			✓	
120	Karen Coulter		✓			✓	
121	Paul Barnes		✓			✓	
122	Susan B. Phillips		✓			✓	
123	John R. Swanson		✓			✓	
124	Carol Dejka		✓			✓	
125	Gregory M. Johns Spirit Walker Expeditions		✓			✓	
126	Scott S. Lowe		✓			✓	
127	Gordon Benner		✓				
128	J. Mike Monasmith		✓			✓	
129	Kim Ney		✓			✓	
130	Wayne Howell		✓				
131	Vickie Bakker Alaska Center for the Environment		✓			✓	
132	Elizabeth E. Taylor Elizabeth Eyre Taylor Real Estate		✓				
133	Michael Clark						
134	Joan & Samuel McBeen		✓				
135	Susan Watson		✓			✓	
136	Mark L. Mickelson		✓			✓	
137	Ray Troll						

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
138	Dr. Lawrence D. Kirsch		✓			✓	
139	Kathy Coghill		✓			✓	
140	Pat Kaczmarek		✓			✓	
141	Ralph A. Wells		✓				
142	James D. Marks		✓				
143	Indra Melrucoue		✓				
144	David A. Ford		✓				
145	Melissa Connor		✓				
146	Connie C. Barlow		✓			✓	
147	Anne M. Gangle		✓			✓	
148	Robert J. McLaughlin		✓				
149	Sylvia Geraghty		✓				
150	Charles L. Vorce		✓			✓	
151	Chris Valle-Riestia		✓			✓	
152	Alan Carlton		✓				
153	William C. Leighty Gold Creek Salmon Bake		✓			✓	
154	Kathy Streveler		✓				
155	Craig W. Farrington		✓				
156	Doug Sanvik		✓			✓	
157	Michael McIntosh The Boat Comapny, Ltd		✓			✓	
158	Chad W. Gibson		✓				
159	James C. Lesh Gustavus Community Association		✓				
160	Robert E. Howe		✓				✓
161	David F. Koschman		✓			✓	
162	George & Lynne Jensen		✓			✓	
163	Robert J. Ellis		✓				
164	Danica Thomas		✓			✓	
165	Bethana F. Mitchell		✓			✓	
166	Arthur L. Kimball		✓			✓	
167	Sean Lyon		✓				
168	Lisa McLaren		✓			✓	
169	Sally Kabisch		✓			✓	

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
170	Russ Christensen		✓			✓	
171	Carole Baker		✓				
172	Kate Boesser		✓			✓	
173	Dan Thorington		✓				
174	Jim Ferdy						
175	Helen A. Fisher		✓			✓	
176	Tom Swan		✓			✓	
177	Terri L.						
178	Daniel Henry		✓			✓	
179	Tina Green		✓			✓	
180	Nancy Ratner		✓				
181	Brian Champlain		✓			✓	
182	J. E. Henry		✓			✓	
183	Bradley Reese						
184	Florence L. Orth		✓			✓	
185	Mary Ellen Cuthbertson	✓	✓			✓	
186	Bill Rotecki		✓				
187	Mary Grisco		✓			✓	
188	Sarah W. Murphy		✓				
189	Peter Butz Wilderness Cruises		✓				
190	Lisa S. Gough		✓				
191	Mr. Murphy, Jr.		✓				
192	Alan Lupel		✓				
193	Eil Clark		✓				
194	Deborah D. Woodruff		✓				
195	Charles L., Chuck D. & Sandra L. Schroth Puffin Travel		✓				
196	Aimee Zoumang		✓				
197	Michael Russell		✓				
198	Fred C. Howe		✓				
199	Fred C. & Gregory Howe		✓				
200	Andrew Blich		✓				
201	Henry Leon		✓				

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
202	Jan Nash Alaska Environmental Lobby		✓				
203	Max Goyle		✓				
204	Robert Bell		✓				
205	Robert M. Langsenkamp		✓				
206	Matt Brakel						
207	Eric Buerger		✓			✓	
208	Barbara T. Dubiel		✓				
209	Rob Burnett		✓		✓		
210	Toni McPherson		✓				
211	Laura N. Smith		✓			✓	
212	James H. Carlson		✓			✓	
213	John & Sharon Nelson		✓			✓	
214	Matthew Tocchini		✓			✓	
215	David C. Ramirez		✓			✓	
216	Kyle Berningham		✓			✓	
217	Douglas Bevington		✓			✓	
218	Jeffrey A. Wright		✓			✓	
219	Pili Goddard		✓			✓	
220	George Hontalas		✓			✓	
221	Mark K. Kirchhoff		✓			✓	
222	Dr. & Mrs. Craig M. Peterson		✓			✓	
223	Sven-Olof Lindblad Special Expeditions		✓				
224	Mark R. Johnston Alaska Coalition of Washington		✓			✓	
225	Robert P. Wagner ¹ City of Tenakee Springs	✓	✓	✓	✓	✓	✓
226	Nevette Bowen		✓			✓	
227	Kathryn Troll Southeast Alaska Seiners		✓		✓	✓	
228	Sandra Barclay		✓				
229	Wanda Culp	✓			✓		✓
230	Joseph R. Mehrkens ² South East Alaska Natural Resources Center	✓	✓	✓	✓	✓	✓

Letter No.	Author's Name/ Affiliation	Theme Responses					
		1	2	3	4	5	6
231	Kenneth J. Hammons Alaska Pulp Corporation				✓		✓
232	Dave Helmick			✓			
233	Robert L. Grogan ³ State of Alaska	✓	✓	✓	✓	✓	✓
234	Steven E. Kallick ³ Lauri J. Adams Sierra Club Legal Defense Fund	✓	✓	✓	✓	✓	✓
235	Barbara G. Dowe		✓				
236	Alaska Reform			✓			
237	Joseph D. Johnson ³ Vance A. Sanders Mark Regan Alaska Legal Services	✓	✓	✓	✓	✓	✓
238	Robert W. Loescher Sealaska Corporation	✓	✓	✓	✓	✓	✓
239	Dena Matkin	✓	✓				

¹ These respondents also commented on Theme 7.

² These respondents also commented on Themes 7 and 9.

³ These respondents also commented on Themes 7, 8, and 9.



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